Evaluating the Effectiveness of *Positive Life Changes* Social-Emotional Learning Curriculum

A DISSERTATION

SUBMITTED TO THE FACULTY OF THE GRADUATE SCHOOL OF THE

UNIVERSITY OF MINNESOTA

BY

Julie Lavonne Young

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

Jim Ysseldyke, advisor

July, 2014

Acknowledgements

Writing a dissertation is tricky business. Although it is certainly a measure of research savvy, it also seems to be a measure of tenacity, courage, perseverance, grit, caffeine-consumption and openness to receiving support. And what abundant support I've received!

To Jim Ysseldyke, thank you for advising me and for providing a creative solution to the toughest problems. For all my committee members, including Annie Hansen, Matt Burns, and Andy Collins, I'm humbled to have academic giants like you on my committee; thank you for your investment in me. To the late Barbara Mack, I'll never forget when you drove from Ames to Minneapolis to ensure your undergraduate advisee didn't give up. Carol Hokinson, thank you for providing an in-road to allow me to run an applied study. Eighth graders, despite your attempts to use charm, bodily functions, shock-humor, and awkward moments to get out of my group, I'm glad you shared your insight and life with me.

To my cohort, our countless whine (and wine) nights provided both innovative solutions to research roadblocks and empathy when I needed it most. Jenny Hodgson, your organization and unwavering support propelled me through graduate school's darkest days. I also cannot leave out the Wilde Roast Café, provider of copious beverages, free-wifi, and the backdrop of my most inspired writing. Sofia, thank you for always taking an interest in my work, even when I lost interest myself. Sarah, Katie, and Elizabeth, your prayers carried my spirit when I felt lowest. Kate Aberson, your knowledge of IRB is almost as finely tuned as your taste in beaches—I'm so happy we

can share both academic challenges and Caribbean vacations. Jennie Uttech, thank you for sharing your knowledge of qualitative design and, even more so, for understanding mere words can't scratch the surface of what your friendship means to me.

Thank you to both the Winjum and Young families, for providing a legacy of discipline and determination, shrouded in love. For my sister Laura, you were patient with me when I lacked social-emotional competence, and have continued to take my calls at all hours and listen without judgment. I'm honored that you used all of your emergency leave to attend my defense—Cedar Rapids Jefferson High School, thanks for excusing an exceptional science teacher. Josh Whitmore, love of my life, I'm glad you only caught the last year of this process, and thank you for your grace in bearing the brunt of my dissertation frustrations. Although I drug you down to my lowest point, you had the courage to stay and the encouragement to lift me back up. To my parents, Drs. Mark and Pamela Young, your example of humility, intelligence, and hard-work are only paralleled by your unconditional love, encouragement, prayer, and support. Thank you for always being on my side; I hope I can live up to your example. Finally, I want to acknowledge the love, acceptance, and abundant provision God has provided me throughout this journey—He is ever faithful.

Dedication

This thesis is dedicated to my parents, Drs. Mark and Pamela Young.

Abstract

A pre-and post-test multiple baseline study was conducted in a suburban middle school to ascertain the utility of *Positive Life Changes* as a targeted (Tier 2) intervention. Specifically, the study sought to determine whether *Positive Life Changes* yields a significant increase in (a) academic engagement and (b) social emotional competence for students, and to explore student perceptions of intervention strength related to this potential growth. Participants (N = 10) were divided into three groups and received the intervention curriculum twice a week during lunch-group sessions for five weeks. The intervention led to positive growth in both academic engagement and social emotional competency. Potential mechanisms leading to social emotional growth and implications for practice are discussed.

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CHAPTER ONE

Introduction

Statement of the Opportunity

Although modern education places a strong emphasis on academic accountability, the construct of school success can be defined far more broadly than the scores students receive on standardized tests (Elias, Wang, Weissberg, Zins, & Walberg, 2002). Success in schools is not solely defined by academic proficiency, rather, it is reflected through a vast array of associated variables, including school performance (e.g., test performance, subject mastery, grades), school attitudes (e.g., motivation, responsibility, attachment), and school behavior (e.g., study habits, attendance, engagement), which foster commitment to academics and effective school performance (Zins, Weissberg, Wang, & Walberg, 2004). Student learning typically occurs in collaboration with peers, teachers, communities and family support; emotions surrounding these relationships can facilitate or impede commitment, work ethic, academic engagement, and ultimately school success (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). As these relationships and emotional processes have a direct association with student learning and outcomes, schools must effectively address social and emotional learning to help all students learn to the best of their capacity (Elias et al., 1997).

Social and emotional learning is an integrative approach that promotes competence and incorporates youth development frameworks to reduce student risk factors and foster protective mechanisms for positive adjustment (Durlak et al., 2011; Guerra & Bradshaw, 2008). Given the power of social-emotional learning, it is important

to determine how interventions can effectively support this type of growth. According to the literature, those social and emotional learning interventions that achieve optimal results are empirically supported and theoretically based and incorporate careful planning prior to execution (Zins, Bloodworth, Weissberg, & Walberg, 2007). Thus, to ensure effectiveness, data must be gathered on a new intervention curriculum prior to its adoption, supporting its use for students in the intended target population.

For elementary school student populations, there are a number of evidence-based social-emotional interventions; in a recent meta-analysis of universal social-emotional learning interventions, more than half of the programs investigated were delivered to elementary school students (Durlak et al., 2011). However, for junior high and secondary students, while several recently published structured social and emotional learning interventions for secondary students exist, few have been researched. Included in these unexplored interventions is the recently published *Positive Life Changes* curriculum (Guerra, 2009).

Purpose of the Study and Research Questions

Analyzing *Positive Life Changes,* the curriculum appears to be clearly defined with strong theoretical support; however, due to its recent publication, no empirical research has been conducted on this intervention. A pre-and-post-test multiple baseline study was conducted in order to determine the utility of this curriculum. Specifically, the study sought to determine the extent to which *Positive Life Changes* yields a significant:

(a) increase in **academic engagement**, as measured through standardized assessment with the Behavior and Emotion Rating Scale—Second Edition

(BERS-2), direct behavior rating by teachers, office referrals and homework completion.

(b) increase in **social and emotional learning**, as measured through standardized assessment with the BERS-2, student surveys included in the curriculum, and direct behavior rating by teachers.

Along with these areas of exploration, the study also sought to determine perceived strengths of the intervention from a student perspective, and to outline potential mechanisms of change related to academic and/or social-emotional growth. Student perceptions of *Positive Life Changes* were addressed via post-intervention small-group semi-structured interviews.

CHAPTER TWO

Literature Review

Social and Emotional Learning Interventions

Objectives of the Chapter

In this chapter a review of the literature is presented on social and emotional learning interventions. The definition and history of social and emotional learning are discussed, along with the theoretical underpinning of the field. Relevant populations for intervention, potential outcomes, causal mechanisms, and potential moderators of social-emotional learning interventions are explored, along with best practices for implementation. Finally, existent social emotional learning interventions *Second Step* and *Positive Life Changes* are described, including their format, theoretical basis, and current empirical support.

Definition and History

Social and emotional learning is an integrative approach that promotes competence and incorporates youth development frameworks to reduce student risk factors and foster protective mechanisms for positive adjustment (Durlak et al., 2011; Guerra & Bradshaw, 2008). In 1994, social and emotional learning rose in prominence following an interdisciplinary summit organized by the Fetzer Institute. This meeting centered on the ineffective nature of prevention and health promotion efforts. At this time, social and emotional learning was identified as a conceptual framework addressing the needs of young people and the fragmentation that typically characterizes the response of schools to those in need (Elias et al., 1997). Following this convention, the

Collaborative for Academic, Social, and Emotional Learning (CASEL) was formed, with the goal of establishing high-quality, evidence-based social and emotional learning as an essential facet of education (Greenberg, Weissberg, O'Brien, Zins, Resnik, & Elias, 2003; see www.CASEL.org). As an international organization, CASEL's primary goals are to: (1) advance the science of social and emotional learning, (2) translate this scientific knowledge into effective school practices, (3) disseminate information about scientifically sound social and emotional learning education strategies and practices, (4) enhance training so that educators effectively implement high-quality social and emotional learning programs and (5) collaborate and network with scientists, educators, advocates, policy makers, and interested citizens to increase coordination of social emotional efforts (Payton et al., 2000; www.CASEL.org).

Over time, the definition of social and emotional learning has increased in clarity and depth. According to a 2004 study, social and emotional learning is "the process through which children enhance their ability to integrate thinking, feeling, and behaving to achieve important life tasks" (Zins, Bloodworth, Weissberg, & Walberg, p. 6). More concretely, an alternate definition outlines this construct as a process of "acquiring core competencies to recognize and manage emotions, set and achieve positive goals, appreciate the perspectives of others, establish and maintain positive relationships, make responsible decisions, and handle interpersonal situations constructively" (Durlak et al., 2011, p. 406). Students who are competent in social and emotional learning will be able to makes responsible and ethical decisions, establish healthy relationships, set positive

goals, recognize and manage their emotions, and meet personal and social needs (Zins et al, 2004).

Reviewing programming for social and emotional learning interventions, CASEL has outlined two coordinated sets of academic strategies to enhance youth development and overall school performance (Hawkins, Smith, & Catalano, 2004). First, instruction must occur in processing, integrating, and selectively applying social and emotional skills. Further, these skills must be implemented in contextually, culturally, and developmentally appropriate ways. Second, programming must establish a caring, safe learning environment involving family and peer initiative, improved classroom management, and whole-school community building activities (Hawkins et al., 2004). With these intervention strategies, involvement in quality interventions can help students better contribute to their school and community, affording feelings of satisfaction, a sense of belonging, and enhanced motivation (Hawkins et al., 2004).

Theoretical Basis

Before exploring the effectiveness of select social and emotional learning interventions, it is imperative to delineate the theoretical basis on which these interventions rest. The backbone for many social and emotional learning interventions includes tenets from several different theories and conceptual frameworks (Payton et al., 2000). Effective social and emotional learning interventions often draw from ecological systems theory, prevention science, the cognitive behavior modification model, social cognitive theory, social development model, and the social information processing model.

Ecological Systems Theory. Bronfrenbrenner (1977, 1979) asserted that individuals spend their lives in a series of interrelated, co-occurring contexts or systems (e.g., self, family, community, society). In ecological systems theory, the broadest level of the environment is the macrosystem, which consists of ideologies, cultural values, and beliefs. Narrowing, the mesosystem refers to any social structures that affect, but do not include, the individual. The immediate context in which an individual interacts, which exerts the most proximal influence on his or her development, is referred to as the microsystem. In 1980, Belsky added the ontogenic developmental level, which includes the individual and his or her own developmental adaptation.

Building upon the ecological framework, Cicchetti and Lynch (1993) proposed the ecological-transactional model, showing that these levels of the environment interact with each other over time, allowing them to shape the development and adaptation of an individual. The idea of mutual influence between a child's context and his or her own functioning allows for both change and continuity in a child's development (Cicchetti & Lynch, 1993). Using an ecological-transactional model, Cicchettti and Lynch (1993) argue that a broad risk factor (i.e., community violence) can be an enduring vulnerability factor within the exosystem, while indirectly affecting children through the microsystem (e.g., family) and directly affecting them at an ontogenic level; alternately, children can be exposed to a broad risk factor, but be unaffected at the microsystemic or ontogenic levels. Using an ecological-transactional lens for assessment, interveners can assess for the presence of a risk factor on each level of ecology. Following this assessment, effective interventions can be selected to address each context where risk is present,

placing emphasis on the most proximal level, thus providing for the highest level of efficacy.

Prevention Science. In 1993, Coie and colleagues proposed a conceptual framework for prevention entitled "prevention science," with the goal of preventing or moderating major human dysfunction by eliminating or mitigating its causes. Since preventative efforts must occur before the manifestation of an illness, authors argue that the research on prevention should be focused on systematically studying antecedents of both health and dysfunction (Coie et al., 1993). Ultimately, the aim of prevention science research is to explore the interplay among antecedents to inform the design of preventative interventions.

Antecedents to dysfunction, or risk factors, are broadly defined as "variables associated with high probability of onset, greater severity, and longer duration of major health problems," whereas antecedents to health, or protective factors, refer to "conditions that improve people's resistance to risk factors and disorder" (Coie et al., 1993, p. 1013). These antecedents can be genetic, biomedical, or psychosocial and have a dynamic, transactional relationship across ecological levels. Further, the salience of select risk factors is dependent upon development, as some risk factors are predictive of dysfunction only for a specific time, whereas others are stable predictors throughout the lifespan.

Exploring the nature of risk factors, these antecedents appear to have a cumulative effect on vulnerability; as the number, duration, and intensity of risk-factors increases, so does the probability of dysfunction. Multifinality is also present in dysfunction, as certain

risk factors serve as antecedents for several different types of disorder. Prevention scientists seek to mitigate or eliminate dysfunction by diminishing risk-factors and promoting protective factors at multiple ecological levels throughout development. In prevention trials, researchers are encouraged to implement interventions with a strong theoretical base and to target individuals who have highly toxic risk factors, or a high level of cumulative risk. Through the intervention process, prevention science aims to provide a framework to mitigate risk and promote resilience and health.

Cognitive-Behavior Modification. The cognitive behavior modification model was outlined by Meichenbaum (1977), who developed a framework incorporating both cognitive and behavioral mechanisms in the process of behavior change. This work was an extension of Aaron Beck's cognitive behavioral therapy, which emerged in the late 1960s. Cognitive behavioral therapy is a form of psychotherapy in which the therapist and client form a therapeutic alliance to identify and solve patient problems. Structured sessions are used to teach patients to identify, evaluate, and respond to dysfunctional thoughts and beliefs through collaboration and active participation (Beck, 1997). In *Cognitive-Behavior Modification*, Meichenbaum (1977) uses the lens of psychotherapy to propose that behavior change occurs through a sequence of mediating processes involving the interaction of inner speech, cognitive structures, behavior and their resulting outcomes. The process of behavior change is broken into a three-phase process including (1) self-observation, (2) incompatible thoughts and behaviors, and (3) cognitions concerning change. These phases, Meichenbaum emphasized, should be viewed as a flexible sequence rather than a stage-progression.

In the first phase, a person scrutinizes his or her own behavior, with specific attention given to thoughts, feelings, physiological reactions, and interpersonal behaviors. Meichenbaum (1977) states that this self-observation is to take place with "raised consciousness" (p. 219). Raised consciousness can also be referred to as heightened awareness, as the therapist helps the client develop new cognitive structures to create a different view of maladaptive behaviors. In the second phase, an individual establishes a new internal dialogue, by determining incompatible thoughts and behaviors and adjusting accordingly. Specifically, the client must learn to initiate positive cognitions and behaviors that interfere with maladaptive ones. The learning process for this technique may be bolstered by modeling and practice with the therapist. The third phase addresses cognitions concerning change, when the client produces new behaviors in his or her everyday world, and must, in turn, assess the outcomes. The assessment of outcomes can be measured through an evaluation of internal dialogue; the message the client sends to him or herself regarding new behaviors and consequences will directly influence the maintenance and generalization of the change. Meichenbaum concludes this process, saying that the extent of success in therapy is determined by the extent to which a client can change both his or her behaviors, and his or her internal dialogues.

Although acceptance of the cognitive-behavioral model has not been without controversy (Ledwidge, 1978), this model has been incorporated into the framework of psychotherapeutic techniques and intervention curricula. Opponents argued that the cognitive component of this intervention was unnecessary, however, early defenders assert that all therapies are "simultaneously cognitive and behavioral" as the behavior of

psychotherapists are intended to produce changes in the ongoing experiences of a client (Mahoney & Kazdin, 1979).

In recent literature, social skills training interventions based on a cognitive-behavioral model have been shown to be effective for reducing aggression among secondary students with emotional and behavioral disorders (Cook et al., 2008). According to a mega-analysis of 77 studies, success rates for secondary students identified as emotionally disturbed (ED) receiving social skills training ranged from 60% to 71%, with an average weighted effect size of $r = .32$. This indicates that social skills training interventions, which fall under the broad category of social and emotional learning interventions, improve outcomes for an average of two-thirds of students who receive them. Although this does not encompass all students in need of services, it does suggest this is a viable and effective form of intervention for students identified as ED (Cook et al., 2008).

Social Cognitive Theory. Social learning theory, later relabeled social cognitive theory (Bandura, 1986), was originally posited by Bandura in 1963 in the seminal book *Social Learning and Personality Development*. According to this theory, behavior is determined by a collection of expectancies and incentives. Individual expectancies can be divided into 3 types: (a) expectancies about environmental cues, or belief about causal relationships among events, (b) expectancies about outcomes, or beliefs relating to the consequences of one's own actions, and (c) expectancies about efficacy, or beliefs relating to one's own competency to perform behaviors necessary to influence outcomes (Bandura, 1977). Incentives are the value of a particular object or outcome; behavior is

regulated by these incentives, but only as the individual understands these incentives, or consequences. Social and emotional learning interventions incorporate social cognitive theory, as many programs create opportunities to re-shape behavioral expectancies via cognitive-behavioral techniques and in-vivo practice.

Modeling, in particular, is an incredibly salient component of instruction modeled after cognitive-behavioral theories. Bandura (1963) emphasized that the information an observer gains from a model is transformed to covert perceptual-cognitive images and mediating rehearsal responses that are retained by the learner. Later, this converted information can be used by the observer as a form of symbolic cue to overt behaviors. These experiences increase an individual's locus of control, or expectancies about the consequences of his or her actions, through continual reinforcement. They also bolster efficacy expectation, or an individual's belief about his or her own competency to perform action. Natural incentives of improved relationships and problem-solving skills serve as reinforcement for these newly learned techniques. As a seminal work, social cognition theory spawned an abundance of models of learning, including the social development model (Hawkins & Weis, 1985), and the social information-processing model (Dodge, Pettit, McClaskey, & Brown, 1986).

Social Development Model. The social development model is a general theory of human behavior that hypothesizes that developmental processes lead to either antisocial or prosocial outcomes (Catalano & Hawkins, 1996; Hawkins & Weis, 1985). Grounded in criminological theory, the social development model incorporates research on the origins of different types of antisocial behavior. The model itself takes a developmental

life course perspective, incorporating a variety of risk and protective factors, similar to the prevention science framework (Hawkins et al., 1995). In this model, risk factors are operationally defined as empirical predictors of the development of antisocial behavior. They include (a) individual factors, such as genetic factors or alienation/rebelliousness, (b) family factors, such as family drug behavior and family management practices, (c) school factors, such as academic failure or commitment to school, (d) peer factors, such as peer rejection in elementary grades or association with deviant peers, and (e) contextual factors, such as community norms and economic deprivation (Hawkins et al., 1995). Alternate research on the development of depressive disorder echoes the strong relationship between accumulating risk factors and negative developmental trajectories (Cicchetti & Toth, 1998).

Protective factors are empirically defined as characteristics hypothesized to moderate the effects of risk exposure (Hawkins et al., 1995) and have been linked to resilience, or "a dynamic process encompassing positive adaptation within the context of significant adversity" (Luthar, Cicchetti, & Becker, 2000). Interestingly, the process of resilience does not require an individual to have extraordinary talent or circumstance; rather, it is a common phenomenon resulting from ordinary human adaptive processes (Masten, 2001). The recognition of resilience has over-turned many deficit-focused models and negative assumptions about children who are considered at-risk for adversity and disadvantage. There is a small set of global factors that has been shown to increase children's resilience; this set includes cognitive and self-regulation skills, a positive view of the self, motivation to be effective in the environment, and connections to caring and

competent adults in the family and community (Masten, 2001), many of which are present in social and emotional learning interventions. Thus, a child's experience of resilience, as reflected through his or her exposure to protective factors, can be strengthened via the implementation of interventions throughout the developmental trajectory (Hawkins et. al, 1995).

The social development model hypothesizes that children learn patterns of behavior from the socializing agents of family, religion, schools, peers, and other community institutions; such relationships can serve as either protective or risk factors. Socialization follows a similar learning process, whether it produces prosocial or antisocial behavior. Children are socialized through a four-construct process: (a) perceived opportunities for involvement in activities, (b) the degree of interaction and involvement, (c) the skills to participate in these interactions and involvement, and (d) the reinforcement they perceive as coming from performance in interactions and activities (Catalano, Kosterman, Hawkins, Newcomb, & Abbott, 2007). With consistency in socializing processes, a social bond develops between the socializing agent and the individual. This social bond has the power to affect behavior, creating an informal control on future behavior. This control has the potential to inhibit deviant or prosocial behavior through an individual's established stake in conforming to the values and norms of a socializing unit (Catalano et al., 2007). Social and emotional learning interventions capitalize on this model by providing students an opportunity to be involved in prosocial behaviors, interact with prosocial peers and role models, and be reinforced for practicing prosocial habits.

Social Information-Processing Model. Another extension of social cognitive theory (Bandura, 1963) is the social information-processing model (Dodge, Pettit, McClaskey, & Brown, 1986). This model incorporates a theory of the mechanisms involved in the development of chronic aggression, with the potential to inform interventions for such problems. This theory centers on the understanding of how specific aggressive behavioral responses come about in social interactions, with consideration of the cognitive processes involved in responding to social stimuli. Specifically, authors (Dodge et al., 1986) outline sequential steps of processing which children take in response to problematic social stimuli; skillful processing can lead to a competent response, whereas deficient or biased processing leads to an aggressive or antisocial response.

Exploring this model, Dodge and colleagues (1986) outlined five separable, sequential steps that occur in processing social environmental cues. These steps include the (1) encoding of social cues, (2) mental representation of those cues, (3) accessing of potential behavioral responses, (4) evaluation and selection of an optimal response, and (5) enactment of that response (Dodge et al., 1986). Each step is further broken down into various components.

First, the process of encoding presented social cues involves attention, sensation, and perception of these cues, and can be either automatic or effortful, appropriate or inappropriate. Second, mentally representing and interpreting these encoded cues involves applying interpretation rules to derive meaning. These interpretation rules are drawn from multiple systems, and can be species, culture, and child specific. Third, the

child accesses or generates one or more potential behavioral responses to the interpreted cues; these responses are drawn from a large repertoire of potential responses which have been acquired throughout development. Fourth, the child evaluates the probable efficacy and consequences of the potential responses to make an optimal choice (Dodge et al., 1986). Throughout this evaluation process, a child may consider the quality of each potential response, the likely outcome following this response, and the degree of confidence he or she feels about his or her ability to perform the response (Dodge & Crick, 1990). In the fifth and final step, the child behaviorally exhibits the chosen response, which requires both motor and verbal skill (Dodge et al., 1986). Overall, these steps occur rapidly in real time, often at an unconscious level. Deficiencies in processing can occur at any step, and result in a response which may lack competence. By assessing a child's social processing at each of these steps, one can predict whether a child will exhibit an aggressive social response; further, if select steps are found to be consistently deficient or biased, intervention may inform more competent social processing (Dodge & Crick, 1990).

Theoretical implications for assessment and intervention. While these theories have been eloquently posited, their strength lies in their applicability in practice. Specifically, each individual theory holds distinct implications for the implementation of social and emotional learning interventions. Applying ecological systems theory (Bronfrenbrenner, 1977, 1979), social and emotional learning is the result of multiple social, biological and psychological factors at a variety of levels in different domains (e.g., intra-individual, family, community, society). Consistent with developmental

perspectives, relational and environmental factors are crucial in a child's acquisition of social, emotional, and academic competencies. Therefore, assessment should occur on multiple levels, with interventions also addressing the many systems within which a student resides.

Aligning with the field of prevention science, universal, selected, and targeted social and emotional learning interventions are conceptualized and developed to promote competency across behavioral, cognitive, and emotional domains (Ward & Linke, 2011). In these evidence-based interventions, youth are encouraged to scrutinize their own behaviors and cognitions and model different responses to difficult circumstances, methods which align with models of cognitive-behavior modification (Meichenbaum, 1977) and social-learning theory (Bandura, 1986). Further, applying the social development model, involvement in the interventions themselves has the potential to serve as a protective factor, as students may build strong social bonds with pro-social role models (Catalano et al., 2007). Finally, many interventions serve to increase awareness of the response process, providing opportunities to learn and practice pro-social responding. Through observation and modeling, students learn new patterns of response to social situations; following from the social-information processing model (Dodge et al., 1986), the newly acquired skillful processing can lead to a competent response, which provides natural reinforcement compared to an antisocial response.

Social and Emotional Learning Interventions

It has been suggested that social and emotional learning interventions provide a promising approach to enhancing student success in academics and life (Durlak et al.,

2011; Elias et al., 1997). Reviewing this body of literature, it is important to know which populations are involved in social and emotional learning interventions, empirical evidence of outcomes resulting from these interventions, and potential causal mechanisms occurring within these programs.

Populations involved in social and emotional learning interventions. Social and emotional learning interventions represent a broad class of programming suitable for a variety of students in a variety of settings. Specifically, it appears that "SEL programs are successful across education levels (i.e., middle, and high school) and in urban, suburban, and rural schools" (Durlak et al., 2011, p. 417). However, of these settings, high schools and rural areas have been the least studied. In terms of implementation, classroom teachers and other school staff can effectively implement social and emotional learning interventions (Durlak, 2011). This finding is of particular importance in terms of resource allocation; it is a credit to these interventions that they can be incorporated into routine educational practice without the addition of outside personnel for effective delivery.

Students with learning disabilities. While the literature suggests that all students can benefit from social and emotional learning interventions (Durlak et al., 2011), it appears that there are certain populations with unique social and emotional needs. Specifically, difficulty with social relationships is a common feature of most students with learning disabilities (Elias, 2004). According to a meta-analysis of 152 studies, an average of 75 percent of students with learning disabilities also manifest social skills deficits compared to their traditional peers, with a mean effect size of .653 across studies

(Kavale & Forness, 1996). For these students, social and emotional skills training may help improve learning outcomes; the literature suggests that three specific competency areas may be most applicable for social-emotional learning intervention for students with learning disabilities. These areas are: (1) Recognizing emotions in the self and others, (2) Regulating and managing strong emotions (positive and negative) and (3) Recognizing strengths and areas of need (Elias, 2004). Reviewing the first area, the problem may be linked to an inadequate vocabulary to describe feelings and emotions. The ability to use an appropriate emotional vocabulary has been suggested to improve children's ability to understand the emotions of others, as this affords them specific labels, providing for a more precise and accurate identification of feelings (Buckley, Storino, & Saarni, 2003). Reviewing the second emphasis area, students with learning disabilities may benefit from additional support in managing strong positive and negative emotions. It is recognized that students with learning disabilities often sit in class confused; this confusion may lead to anger, which left unchecked may interfere with future learning. Social and emotional learning interventions have the potential to stop this cycle, by providing students with the skills to manage emotions, along with verbal and visual prompts to scaffold the use of such skills (Elias, 2004). Finally, students with learning disabilities may need assistance in recognizing their own strengths and areas of need; this may provide students the opportunity to exercise and build on these skills while reconnecting students with their value and potential (Elias, 2004).

*"**At-risk" youth.*** In addition to improving outcomes for students with learning disabilities, social and emotional learning interventions also have been shown to promote

the competency of at-risk youth. Specifically, these interventions can mitigate or prevent substance abuse, school dropout or other antisocial behaviors (Greenburg et al., 2003). Broadly the construct of "at-risk youth" has been categorically divided into four major problem areas: (1) delinquency, (2) substance abuse, (3) early childbearing, and (4) school failure (Dryfoos, 1991). Youth who are at a high probability for negative consequences in these categories are said to be "at-risk," and should be the primary target population for interventions.

In order to determine which students are "at-risk," a researcher must determine antecedents to problem behaviors; these salient variables must account for significant variation in the expression of undesirable behaviors (Dryfoos, 1991). Examples of antecedents to antisocial behaviors include, but are not limited to, low socio-economic status, low academic achievement, and homelessness or high mobility. On a practical level, these criteria have been used to select students for participation in intervention research. In one study, authors defined high-risk schools by excluding those that had more than 50 % of students passing the state achievement test and fewer than 50 % of students receiving free lunch (Lewis et al., 2012). Using 14 schools that met these criteria, a social and emotional learning intervention significantly decreased adolescent substance use, while increasing social and emotional and character development (Lewis et al., 2012), suggesting that social and emotional learning interventions have the capacity to improve outcomes for at-risk youth.

Positive outcomes of social and emotional learning interventions

Social and emotional learning interventions have been associated with a variety of positive outcomes for students (Greenberg et al., 2003; Durlak, 2011). Specifically, positive results have been apparent in the areas of (a) youth development, (b) mental health, (c) substance use, (d) school non-attendance, anti-social behavior and drug use and (e) academic performance and learning (Greenberg, 2003). While nine years have passed since Greenberg originally identified these five areas, positive results remain a motif in the literature. Positive significant results in these areas are also evident in a 2011 meta-analysis; these effects exhibited maintenance, as mean effect sizes remained significant for all outcomes at a six month follow-up (Durlak et al., 2011).

Positive youth development. The term positive youth development encompasses a multitude of constructs (e.g., resilience; cognitive, behavioral and moral competence; self-determination; self-efficacy; pro-social actions and attitudes; positive social behavior; positive attitudes towards self and others; Catalano, Berglund, Ryan, Lonczak, & Hawkins, 2002; Durlak et al., 2011). Reviewing a 2002 meta-analysis, it appears that programs that are the most effective in promoting positive youth development (a) address a minimum of five positive youth constructs, (b) contain a measure of positive and problem outcomes, (c) have a structured curriculum, (d) have a program duration of at least 9-months and (e) have a high degree of implementation integrity, or fidelity of implementation (Catalano et al., 2002). Many of these positive youth development best practices emerged as general recommendations for implementation of social and emotional learning interventions (Durlak et al., 2011). A 2011 meta-analysis of social and

emotional learning interventions yielded moderate effect sizes for changes in social emotional skills (Hedge's *g*=. 57), attitudes toward self and others (Hedge's *g*= .23), and positive social behavior (Hedge's *g*= .24; Durlak et al.). Logically, it follows that the highest effect size for social and emotional learning interventions is related to students' social-emotional skills, as this construct is explicitly taught in the intervention process. All of these effect sizes were found to increase with strong implementation integrity (Hedge's *g* = .86, .29, .31, respectively), providing convergent validity evidence (Durlak et al., 2011).

Mental health. Youth mental health is a growing topic of concern in the United States due to the rising number of young people diagnosed with mental illness. Results from the National Comorbidity Study-Adolescent Supplement (NCS-A) indicate that approximately one in every 4–5 youth in the United States meets criteria for a mental disorder with severe impairment across their lifetime (Merikangas et al., 2010). Further, a 2005 study found that 9.2% of youth ages two to 17 across the United States are diagnosed as having moderate to severe difficulties in managing their emotions, behavior, ability to get along well with others, and ability to concentrate (Child and Adolescent Health Measurement Initiative). Appropriately implemented social and emotional learning interventions have the potential to attenuate this growing problem; recent studies have shown statistically significant improvements in mental health for students who participate in social and emotional learning interventions (Durlak & Wells, 1997; Durlak et al., 2011). Reviewing a 1997 meta-analysis, Durlak and Wells examined 177 primary prevention programs designed to prevent behavioral and social problems in youth age 18

and under. Results yielded that interpersonal problem-solving training and person-centered affective education yielded effect sizes ranging from .24 to .93; benefits were most pronounced for children from age 2 to 7 (Durlak & Wells, 1997). Looking at more recent data, a 2011 meta-analysis examined the effects of social and emotional learning interventions on "emotional distress," which was operationally defined as "measures of internalized health issues…includ[ing] reports of depression, anxiety, stress, or social withdrawal, which could be provided by students, teachers, or parents on measures such as the Children's Manifest Anxiety Scale" (Durlak et al., 2011, p. 411). Results showed an overall mean effect size of .24, increasing to .35 for interventions implemented with fidelity, corroborating that social and emotional learning interventions can have a positive effect on student mental health.

Substance use. Adolescent substance use and abuse in the United States is a critical public health issue; according to a 2011 nationally representative survey, among eighth grade students approximately 18.4% acknowledged cigarette use, 27.0% acknowledged alcohol use, and 20.1% acknowledged any illicit drug use[1] (Johnston, O'Malley, Bachman, & Schulenberg, 2012). Given the high prevalence of substance use among adolescents, it is important to explore evidence-based interventions to prevent adolescent substance abuse.

Results of social and emotional learning interventions on substance use are mixed; as with most classes of interventions, not all interventions are created equal. A 2000 meta-analysis by Tobler and colleagues analyzed 207 universal prevention

[1] : "Use of 'any illicit drug' includes any use of marijuana, LSD, other hallucinogens, crack, other cocaine, or heroin; or any use of narcotics other than heroin, amphetamines, sedatives (barbiturates), or tranquilizers not under a doctor's orders" (Johnston, O'Malley, Bachman, & Schulenberg, 2011, p. 54).

programs to determine the characteristics of the most effective interventions. A weighted regression method of intervention characteristics found program size and type to be significant predictors of program effectiveness. Program type was categorically defined into (a) non-interactive or (b) interactive approaches. Non-interactive approaches were defined as affective-only, knowledge-only, attitudes/decisions/values, knowledge-plus-affective and DARE-type programs. Interactive approaches included models addressing social influences, system-wide change models, and comprehensive life skills; many interactive approaches also included a modeling component. Of note, Tobler and colleagues determined that non-interactive lecture oriented programs had a minimal impact, however, interactive programs had a significant impact, as they enhanced the development of inter-personal skills (2000).

Exploring the mechanisms of effectiveness in preventing adolescent substance use, a 2012 study examined mediating factors in the effect of social emotional and character development program on adolescent substance use (Lewis et al.). In this study, researchers incorporated a matched-pair random control trial using 14 low-income urban public schools in Chicago (N = 1170). The goals of this longitudinal study were (1) to determine the effectiveness of a school-based social-emotional learning intervention in reducing substance use and (2) to test the mechanism by which the program achieved its success. Researchers found that the effects of the intervention on substance use were completely mediated by changes in social emotional and character development (Lewis et al., 2012). This finding suggests that social and emotional learning interventions may have a place in mitigating and preventing adolescent substance use.

Alternate research in the field of prevention science echoes this finding, stating that, "*Evidence-based interventions* in the area of social emotional learning have demonstrated efficacy in reducing adolescent engagement in high-risk behaviors in the school setting" (emphasis added, Ward & Link, 2011, p. 55). It makes logical sense that an interactive approach, which is a known best practice in education, is far more effective than a non-interactive approach in instruction. Also, the interactive approach provided by such social and emotional learning curriculum fits into a cognitive-behavior modification framework, which has strong theoretical support (Meichenbaum, 1977).

School non-attendance and conduct problems. A 2001 meta-analysis of 165 studies of school-based social-emotional learning preventative interventions yielded that social competency or self-control programming incorporating cognitive-behavioral and behavioral instructional techniques effectively reduced dropout and non-attendance, conduct problems and substance use (Wilson, Gottfredson, & Najaka). In a related study, a 2011 meta-analysis examined the effects of social and emotional learning interventions on "conduct problems," which were categorized as "measures of different types of behavior problems, such as disruptive class behavior, noncompliance, aggression, bullying, school suspensions, and delinquent acts" (Durlak et al., 2011, p. 411). An effect size of .22 was calculated for positive reduction of conduct problems following implementation of a social and emotional learning intervention; for interventions with a problem-free implementation process, this effect size increased to .27.

Academic performance and learning. While social and emotional learning interventions are recommended by professional organizations, such as the National

Association of School Psychologists (NASP) and the American Psychological Association (APA), academic performance and learning are a primary emphasis of the United States education system. Legislative acts such as the No Child Left Behind (NCLB) Act and the Individuals with Disabilities Education Act (IDEA) have brought academic accountability to the forefront of the nation, directly linking student academic progress, as measured by standardized assessments, and the provision of federal funding. Therefore, with increased accountability for student academic performance, this construct is of particular interest when educators decide whether to devote resources to social and emotional learning interventions. A compelling conceptual and empirical case has been presented linking social and emotional learning interventions and improved school attitudes, behavior, and ultimately performance (Zins et al., 2004). In an example of developmental cascade, students who become more self-aware and confident about their learning abilities may exert more effort, and this effort may increase intrinsic motivation, leading to better goal-setting, stress management and organization, which can ultimately result in better performance (Zins et al., 2004). Further, researchers also suggested that students who make responsible decisions regarding homework completion and studying, coupled with the use of acute problem-solving and relational skills to overcome obstacles, will have higher achievement (Zins et al., 2004). Given this conceptual model, Zins and colleagues asserted that the research linking social, emotional and academic factors is sufficiently strong to advance the term social and emotional learning (SEL) to social emotional and academic learning (SEAL; Zins et al., 2004).

Exploring empirical evidence regarding the effect of social and emotional learning interventions on student academic performance and learning, a 2011 meta-analysis compounded results across 213 studies of social-emotional learning programs (Durlak et al.). For the purpose of the meta-analysis, academic performance was defined by standardized reading or math achievement test scores (e.g., Stanford Achievement Test or the Iowa Test of Basic Skills) and school grades in the form of overall grade point average. Only data acquired from official school records were included in the study; teacher ratings of academic competence, IQ measures, and teacher-developed tests were not included. Overall, a moderate effect size for academic performance was observed across studies (Hedge's g = .27), increasing among studies in which interventions were implemented with fidelity (Hedge's g = .33; Durlak et al., 2011).

Causal mechanisms in social and emotional learning interventions. While many preventative social and emotional learning interventions reduce problem behaviors and build competencies in children, it is important to explore various causal factors behind their effectiveness. According to Bronfrenbrenner's ecological systems theory, children's development occurs within a context of the systems of relationships that form their environment (Brofrenbrenner, 1992). These relationships layer in complex ways. A child's own biology serves as a primary environment fueling development, but intermingles among the child's intermediate family, peer groups, community environment, and broader societal landscape (Bronfrenbrenner, 1992). As each of these relationships interlink, one can see that change or conflict in any layer has the potential to cause a "ripple" effect across systems. Applying this theory to social and emotional

learning interventions, one can see that positive effects intermingle across various systems to positively impact children. Specifically, causal mechanisms emerge on an individual, or person-centered level, and on a broader societal level, with multi-component interventions incorporating environmental and relational factors.

Person-centered explanations.

Neurological effects of social and emotional learning interventions. Currently, select research has compiled neuroscientific findings to explore causal mechanisms in social and emotional learning interventions. A 2006 study explored how the implementation of a social and emotional learning intervention, Promoting Alternative Thinking Strategies (PATHS), affected neurological functioning (Greenberg). A randomized controlled study was conducted using a sample of 318 second- and third-grade school children. Findings of this study indicated that effective implementation of this curriculum resulted in statistically significant improvements in executive functioning for participants. This result suggests that social and emotional learning may affect central executive cognitive functions, such as set shifting, planning, and inhibitory control; these effects are the result of building greater cognitive-affect regulation in the anterior cingulate and dorsolateral prefrontal cortex (Greenberg, 2006). Theoretically, this finding supports that a child's neurocognitive functioning plays a key role in his or her social-emotional adaptation; thus, changes in executive functioning have the potential to directly relate to a reduction in behavioral problems.

Cognitive effects of social and emotional learning interventions. In addition to this biological explanation, cognitive explanations have also been posited to explain the

effectiveness of social and emotional learning interventions. Returning to an ecological framework, these two explanations are not mutually exclusive; rather, they explain different systems affected by the intervention. Social and emotional learning interventions have been linked to changes in patterns of conscious thought and reasoning. Cooperative negotiating strategies and competency training, which are components of many social and emotional learning interventions, are positively linked to cooperative goal-setting (Frey, Nolen, Van Schoiak Edstrom, & Hirschstein, 2005). Authors suggest this goal-setting "buffers children from the influence of hostile biases in attribution" (Frey et al., 2005, p. 194). This attributional shift is key in early prevention; as aggressive beliefs formed in the primary grades predict later aggressive behavior and account for considerable stability in aggression, it is important to intervene early in cognitive processes (Huessman & Guerra, 1997).

Environmental and relational explanations. While there are many person-centered explanations of the effectiveness of social-emotional interventions, it is apparent that many of these interventions also affect change using a broader community system. Early literature purported that multi-component programs provided a broader ecological focus, extending into the community, which appeared to better support and sustain the development of new skills (Tolan, Guerra, Kendall, 1995). However, alternate research showed that positive youth-development interventions yielded no difference among single and multi-component interventions (Catalano et al., 2002). Corroborating this result, in a recent meta-analysis of results across 213 school-based social and emotional learning interventions, no significant additional benefit was found for multi-component

programs over single component (i.e., classroom only programs; Durlak et al., 2011). Authors suggest that while there was no significant result for multi-component interventions over single interventions, this may be the result of a variety of moderating variables.

Potential moderators of SEL.

SAFE components. As with any intervention process, all social and emotional learning interventions are not created equal. According to a 2011 meta-analysis, many facets of interventions and intervention implementation can serve as potential moderators of effectiveness. Specifically, this meta-analysis looked at 4 best practices identified by the acronym *SAFE*, and whether these intervention components and characteristics impacted the effectiveness of social and emotional learning interventions across existent studies (Durlak et al., 2011). *SAFE* consists of the following facets: (a) *Sequence*: Does the program use a coordinated and connected set of activities to achieve their objectives relative to development? (b) *Active*: Does the program use active forms of learning to help young people acquire new skills? (c) *Focused*: Does the program have at least one component dedicated to developing personal or social skills? and (d) *Explicit*: Does the program target specific SEL Skills rather than targeting positive development or skills in general terms? (Durlak et al., 2011). Across 213 universal social and emotional learning programs involving 270,034 kindergarten through high school students, results yielded that programs that followed the *SAFE* procedures were effective in a variety of outcome areas; however programs that failed to follow these procedures lacked success in any area (Durlak et al., 2011).

Implementation integrity. Beyond *SAFE* components, implementation is a key moderator of intervention effectiveness. Certainly, implementation integrity, also referred to as "treatment integrity," "procedural reliability," and "treatment fidelity," has been highlighted in recent publications. In 2009, the National Association of School Psychologists launched a campaign highlighting the importance of implementation integrity; included in this push was a special series on "developing the science of treatment integrity" (Hagermoser-Sanetti & Kratochwill, 2009). In this review, the authors synthesized existent literature on conceptual models of implementation integrity, including those by Dane and Schneider (1998), Power and colleagues (2005), and Noell (2008). They found that a majority of conceptual models contained dimensions that addressed at least one of the following areas: (a) content, or the steps of the intervention that were delivered (b) quality, or how well the intervention steps were delivered (c) quantity, or how much of the intervention was delivered and (d) process, or how the intervention was delivered (Hagermoser-Sanetti & Kratochwill, 2009). Thus, authors suggest a multidimensional conceptualization of this construct and the assessment of implementation integrity across many facets.

Unfortunately, while implementation integrity is an essential component of the intervention process, a 2009 review of the treatment outcome literature yielded that, on average, 19.9 % of researchers provided quality implementation integrity data (Hagermoser-Sanetti & Kratochwill, 2009). Despite limited data in the literature, the push towards implementation integrity is not limited to school psychology. Indeed, it is an

interdisciplinary effort, with a similar emphasis emerging in the literature of child and clinical psychology (e.g., Perepletchikova, Treat, & Kazdin, 2007).

Recent research has been able to better illuminate the importance of implementation integrity. According to a 2011 meta-analysis, social and emotional learning interventions with implementation problems had lower effect sizes (Hedge's *g*=. 35) than those without problems (Hedge's *g* = .86; Durlak et al., 2011). This finding was supported by prior meta-analyses of youth programs, which reported that implementation problems have a negative impact on program effectiveness (DuBois, Holloway, Valentine, & Cooper, 2002; Smith, Schneider, Smith & Ananiadou, 2004; Wilson, Lipsey, & Derazon, 2003). A 2002 meta-analysis on 161 positive youth development programs highlighted the importance of using structured manuals and curricula to support consistency in program delivery (Catalano et al.). Returning to the earlier non-significance of multi-component interventions over single-component interventions, authors posit that the challenges involved in implementing multi-component interventions lead to low fidelity of implementation, diminishing their effectiveness (Durlak, 2011). This hypothesis is supported by prior research, which suggests that the more extensive and complicated the program, the more likely it is to encounter problems during implementation (Wilson et al., 2003).

Best practices in implementing social and emotional learning interventions. For social and emotional learning interventions to achieve optimal results, they must be empirically supported and theoretically based, incorporating careful planning prior to execution (Zins, Bloodworth, Weissberg, & Walberg, 2007). Additionally, these

interventions must teach social and emotional skills which can directly apply to daily life, addressing both affective and social dimensions of learning (Zins et al., 2007). In best practice, social and emotional learning interventions are not implemented in isolation; they must lead to coordinated, integrated, and unified programming linked to academic outcomes (Zins et al., 2007). From an ecological standpoint, the most effective social and emotional learning interventions involve family and community partnerships (Zins et al., 2007). As previously noted, it is essential that these interventions be implemented with fidelity; the use of structured manuals and curricula can support consistency in program delivery (Catalano et al., 2002). Further, from a resource-conservation standpoint, structured manuals and curricula allow for classroom teachers and other school staff members to implement interventions, research on which has yielded significant positive results for students (Durlak et al., 2011). Finally, it is vital that progress monitoring and review are an ongoing process throughout the implementation of social and emotional learning interventions; this data can help inform continuous improvement of interventions, along with providing empirical evidence of outcomes (Zins et al., 2007).

Existing Social and Emotional Learning Interventions

Given that best practice for social and emotional learning interventions includes implementing empirically supported interventions, it follows logically that data must be gathered on a new intervention curriculum prior to its adoption. Specifically, significant positive outcomes should be supported for students in the intended target population. For elementary school student populations, there are a number of evidence-based social-emotional interventions; in a recent meta-analysis of universal social-emotional learning

interventions, more than half of the programs investigated were delivered to elementary school students (Durlak et al., 2011). However, for junior high and secondary students, while several recently published structured social and emotional learning interventions for secondary students exist, few have been thoroughly supported by researched. These include a widely-implemented program, *Second Step* (Committee for Children, 1991, 1992a, 1992b, 1997), and the recently published *Positive Life Changes* curriculum (Guerra, 2009).

Second Step. *Second Step*, first published in 1986, is "a violence-prevention curriculum created with dual goals of reducing development of social, emotional, and behavioral problems and promoting the development of core competencies" (Frey, Hirschstein, & Guzzo, 2000, p. 102). Currently, the elementary-level curriculum is widely implemented throughout the United States and Canada, although the curriculum exists for pre-kindergarten through eighth grade students (Frey, Hirschstein, & Guzzo, 2000). Addressing the intervention series' secondary education curriculum, *Second Step: Student Success Though Prevention for Middle* School is marketed as a program to teach "empathy and communication, emotion-management and coping skills, and decision making…[to] help students stay engaged in school, make good choices, set goals, and avoid peer pressure, substance abuse, bullying, and cyber bullying" (Committee for Children webpage, 2012).

Intervention format. *Second Step* is designed to be implemented on a universal level, as this method of delivery may enhance the application of newly-acquired skills; proponents of this curriculum suggest that if the intervention is only delivered at a

targeted level, "a participant in a 'pull-out' group may initiate a strategy that is not recognized or valued by classmates" (Frey, Hirschstein, & Guzzo, 2000, p. 103).

Delivery of *Second Step* curriculum is generally conducted by classroom teachers or counselors within a school setting. At the middle school or junior high levels (grades 6-8), the curriculum consists of 4 workbooks containing 13 to 15 scripted lessons that incorporate video components and role-play practice sessions. Further, this curriculum contains academic integration activities, handouts, homework, a family component, and in-vivo skills practice (Committee for Children, 1997). Throughout middle school years, students work their way through a four-workbook series including, "Bystander Power," "Staying in Control," "Action Steps," and "Coping with Stress." Structurally, the *Second Step* curriculum centers on five key themes, which authors purport are built upon risk and protective factors and developmental literature (Committee for Children, 1997). These themes are: (1) empathy and communication, (2) bullying prevention, (3) emotion management, (4) problem solving, decision making, and goal setting, and (5) substance abuse prevention. Themes are addressed in a spiraling curriculum throughout each of the four workbooks.

Theoretical basis for Second Step. As recommended by CASEL, quality social and emotional learning interventions must have a strong theoretical base. *Second Step* is rooted theoretically in social learning theory and several additional conceptual frameworks.

Social Learning Theory. Revisiting Bandura's social learning theory (1986), many tenets of this seminal work are incorporated in the *Second Step* curriculum.

Throughout this intervention, concepts such as observation, self-reflection, performance, and reinforcement are utilized in the acquisition and maintenance of behaviors that reflect the desired social and emotional learning competence (Frey, Hirschstein, & Guzzo, 2000). For example, in a lesson entitled "Empathy and Communication: Being Assertive," children get to practice observing and identifying the tone used in conversation via a video segment, followed by an opportunity to model using different conversational tone and identify it in others (Committee for Children, 1997, p. 203).

Additional conceptual frameworks. In addition to Social Learning Theory, *Second Step* draws from several conceptual frameworks (Frey, Hirschstein, & Guzzo, 2000). These include the social informational-processing model (Dodge et al., 1986), cognitive-behavioral model (Meichenbaum, 1977), and the implicit technology of generalization (Stokes & Baer, 1977). In any given session, sufficient demonstrations and modeling with adult guidance are provided, allowing students to acquire knowledge in social and emotional competencies. As this knowledge is acquired, more autonomous modeling opportunities are provided to increase the fluency of using these skills. This modeling and self-monitoring echoes framework espoused in the social informational-processing model (Dodge et al., 1986) and cognitive-behavioral model (Meichenbaum, 1977). Training for generalization is also a recognized feature of the program (Frey, Hirschstein, & Guzzo, 2000), as teachers are encouraged to use real-life situations to model and practice skill sets. This intentional method aligns with Stokes and Baer's (1977) "Train to 'generalize'" method, which provides scaffolding for better practical application, as opposed to the

"Train and Hope" method which is assumed to be in place for programs without explicit generalization training.

External review of Second Step. On the elementary level, a randomized control trial of Second Step in 12 elementary schools showed decreased aggression accompanied by an increase in positive behaviors (Grossman et al., 1997). In this study, maintenance of effects was examined six months post-program, with low aggression levels remaining constant. In an alternate study, Edwards, Hunt, Meyers, Grogg, and Jarrett (2005) explored the effects of Second Step curriculum on fourth and fifth grade students (N=455). Results showed that children who experienced the curriculum had significant gains in knowledge about empathy, impulse control, anger management, and bully-proofing. Data from report cards showed modest gains in prosocial behavior (Edwards et al., 2005).

Although Second Step curriculum has been reviewed extensively at the elementary school level, only a modest level of research addresses the middle school version of this program, with mixed results regarding its effectiveness (McMahon & Washburn, 2003; Orpinas et al., 2000; Orpinas, Parcel, McAlister, & Frankowski, 1995; Van Schoiack-Edstrom, Frey, & Beland, 2002). In 1995, Orpinas and colleagues conducted a pilot study on the Second Step middle school curriculum using a pre- and post-test survey design. Participants included 223 6th grade students, most of whom were Latino. Results of this study yielded initial decreases in aggression for boys in two of the six intervention classes; girls in the study showed no significant decrease in aggression. Three-month follow-up data yielded no significant intervention effect on self-reported

aggressive behavior (Orpinas et al, 1995). The authors cited limitations in their research design and methods as potential contributing factors to this lack of significance.

Five years later, Orpinas and colleagues (2000) returned to implement a more rigorous study of the Second Step middle school curriculum through a multi-component violence prevention program. This program package included the Second Step middle school curriculum, two peer mediation programs, a parent education newsletter, and two School Health Promotion Counsels per participating school to coordinate curriculum implementation. Eight middle schools were involved in the study; these schools were composed primarily of "urban, poor, largely minority students" (N = 2,246; Orpinas et al., 2000, p. 55). Program effectiveness was evaluated over the course of three years using annual student, teacher, and administrative surveys. No significant results were found for any of the outcome variables of the study (e.g., aggression, fighting in school, missing class; Orpinas et al., 2000).

In a 2002 study Van Schoiack-Edstrom, Frey, and Beland, explored the effects of Second Step curriculum on students' perceived difficulty of performing social skills and attitudes regarding aggression on a cohort of sixth through eighth grade students (N = 714). Five middle/junior high schools were included in the study; three were located in the United States, and two were located in Canada. Students were randomly assigned into treatment or control conditions at the classroom level. Students in the treatment group were further stratified by their year in school; the Year 1 curriculum was used for a collection of sixth and seventh grade students (n = 387), while the Year 2 curriculum was used for seventh and eighth grade students (n = 327). Classroom teachers implemented

the intervention, and students were surveyed before and after program implementation in a repeat measures design (Van Schoiack-Edstrom, Frey, & Beland, 2002).

Results of this study showed that, relative to non-participants, students who experienced the Year 1 curriculum had significant decreases in their endorsement of Social Exclusion (ES = .37), however, there were no significant differences for Physical Aggression or Verbal Derogation. Transitioning, relative to non-participants, students who experienced the Year 2 curriculum had significant decreases in their endorsement of Social Exclusion (ES = .61), Physical Aggression (ES = .77), and Verbal Derogation (ES = .65) For both Year 1 and Year 2 groups, an interaction was observed for gender, indicating that girls endorse aggression less than boys (Van Schoiack-Edstrom, Frey, & Beland, 2002).

In a concurrent study, McMahon & Washburn (2003) explored the effectiveness of the Second Step curriculum for fifth through eighth grade students in 2 inner-city Chicago schools (N = 149). The curriculum was implemented via a co-teaching model of graduate students and classroom teachers. Implementation in School A began at the beginning of the school year; implementation for School B began after the public school winter break. In this study, researchers specifically measured knowledge about violence, skills related to violence prevention, empathy and impulsivity, prosocial and aggressive behaviors, and psychological sense of school membership via a pre- and post-test survey design.

Results suggest that participants demonstrated an increase in self-reported knowledge and skills related to violence, self-reported empathy, and teacher-reported

prosocial behavior. Results regarding aggression were mixed, with peer-ratings of aggression increasing for grade eight, decreasing for grade seven, and showing no change for grades five and six. Across schools, teacher-ratings of aggression decreased at School B, but increased at School A. Further, sense of school membership increased in School A, but decreased in School B; similarly, in School A, prosocial behavior increased and aggressive behavior decreased, whereas in School B, prosocial behavior remained constant, while aggressive behavior increased ($p = .01$). Given the inconsistent results in this study (McMahon & Washburn, 2003), and across the aforementioned studies (Orpinas et al., 2000; Orpinas, Parcel, McAlister, & Frankowski, 1995; Van Schoiack-Edstrom, Frey, & Beland, 2002) more research may be necessary regarding Second Step's middle school curriculum.

Positive Life Changes. Recently, a new social and emotional learning curriculum has been published; *Positive Life Changes: A Cognitive-Behavioral Intervention for Adolescents and Young Adults* is a "comprehensive cognitive-behavioral training intervention" targeted at secondary students in schools or alternative settings (Guerra, 2009, p. 1).

Intervention Format. Although *Positive Life Changes* is primarily intended to be a small group intervention (Tier II), it can be implemented as a classroom wide intervention (Tier I), or in a single student setting (Tier III). The intervention is composed of 30 one-hour lessons, building on a psychoeducational framework; this framework allows participants to examine patterns of thought, develop effective cognitive skills, and apply these skills to their everyday lives (Guerra, 2009).

Positive Life Changes is structured around 30 one-hour lessons, supplemented with participant homework and discussion. These lessons are divided into three participant workbooks: (1) Who am I and Where Am I Going?, (2) How Do I Get Along With Others?, and (3) How Do I Solve Problems and Make Good Decisions?. Each workbook is designed for student use, containing a homework component and discussion questions; additionally, a comprehensive *Positive Life Changes: Leader's Guide* is included to script each lesson and facilitate discussion. Although the workbooks are designed to work in conjunction with one another, they can be used separately to target specific skills or in interventions with abbreviated duration. The use of a structured workbook has been cited in the literature as a best practice in implementing social-emotional interventions, as it is linked to strong implementation integrity (Durlak et al., 2011).

Group process. Each lesson is conducted in a group meeting, where members are encouraged to actively participate in discussion. "Ice-breakers" and other interactive games are built into the *Positive Life Changes* program to foster group enthusiasm and encouragement. At the beginning of each group meeting, members are required to review the "Seven Skills for Group Members": (1) Listen, (2) Summarize and restate, (3) Show respect, (4) Be open and honest, (5) Be sensitive, (6) Maintain confidentiality, and (7) Stay motivated. A group leader facilitates discussion throughout each session, however, students are encouraged to actively participate and draw from their prior homework assignments.

Program goals. Positive Life Changes aims to encourage healthy development and prevention of problem behaviors through (a) increasing knowledge of a set of core competencies, (b) promoting mindfulness, and (c) training in social-cognitive skills. Each of these 3 program goals has been operationally defined, including theoretical background, in the *Positive Life Changes: Leader's Guide*; these goals also align with prior research on effective social and emotional learning interventions (Guerra, 2009; Zins et al., 2007).

Structurally, the *Positive Life Changes* program centers on 5 core competencies, which represent "key social and emotional skills that increase the chance of healthy adjustment and decrease the chance of problem behaviors such as violence, substance use, and high-risk sexual behavior" (Guerra, 2009, p. 3). These competencies are: (a) positive sense of self, (b) self-control, (c) a moral system of belief, (d) prosocial connectedness, and (e) decision making skills (Guerra, 2009). Revisiting the positive outcomes of social and emotional learning interventions, these competencies echo tenets of positive youth development and mental health (Catalano et al., 2002, Durlak et al., 2011). Further, the specific number of competencies aligns well with a prior meta-analysis of social and emotional learning interventions, which purported that to be most effective, programs must address a minimum of five positive youth constructs (Catalano et al., 2002).

Theoretical basis for Positive Life Changes. Comparable to *Second Step, Positive Life Changes* also follows the intervention best practice of a strong theoretical base. This

recently published intervention curriculum is rooted theoretically in social cognitive theory and several conceptual frameworks.

Social Learning Theory. A motif of the *Positive Life Changes* program is an emphasis on social cognitive skills, which align with the aforementioned social learning theory (Bandura, 1986). Social-cognitive skills, or social problem solving skills, have been defined as "strategies individuals use to process and respond to social information" (Guerra, 2009, p. 5). They incorporate specific steps for problem-solving, including: searching for cues, considering goals, generating alternative solutions, thinking about consequences, and selecting a specific solution. Throughout the program, participants are encouraged to examine their own thinking processes and identify maladaptive thoughts as they relate to the corresponding topic. These examinations, or "Think Checks," highlight common errors related to the topics in each activity. Although the author does not cite cognitive-behavioral therapy, many concepts (e.g., identifying maladaptive thoughts, participant homework) hearken back to seminal work by Aaron Beck (1997).

Additional conceptual frameworks. Theoretically, the concept of a competency-based approach stems from the strengths-based approach included in positive youth development along with the aforementioned cognitive behavior modification model (Meichenbaum, 1977). Exploring their connection to positive youth development, these competencies operate on an underlying premise that "youth will behave more responsibly if they clearly understand their strengths, know how to access social support, learn to set positive goals for themselves, understand the consequences of their actions for themselves and others, and deal effectively with conflicts and problems that occur in their

daily lives" (Guerra, 2009, p. 4). Analyzing this premise, developmental literature links these five core competencies with improved outcomes for youth (Guerra & Bradshaw, 2008). Delving into the curriculum, observation and modeling components are resonant with the cognitive behavior modification model (Miechenbaum, 1977).

External Review of Positive Life Changes. To date, no research has been conducted on the *Positive Life Changes* program. This dearth in empirical support may be due its recent publication; the first edition of *Positive Life Changes* was published on September 30, 2009. A review of this cognitive behavioral intervention was published in the Minnesota School Psychologist Associations (MSPA) newsletter (Pike, 2010). "By teaching students empathy, the importance of belonging to positive social groups, and other skills, *Positive Life Changes* enhances social skills and life competencies. The assessment materials included with the program allow data-based decisions to be made about the intervention and the individuals in the program" (Pike, 2010).

Although no empirical research has been conducted on the *Positive Life Changes* Program, the third workbook is largely based on a previous publication, *Viewpoints: A Guide to Conflict Resolution and Decision-Making for Adolescents*. Research on this prior work suggests that the intervention has fair empirical support (Guerra & Slaby, 1990). Specifically, a study of 120 adolescents incarcerated for aggression offenses showed that a group experiencing the cognitive mediation training program yielded increased skills in solving social problems, decreased endorsements of beliefs supporting aggression, and decreased aggressive, impulsive and inflexible behaviors, as rated by

staff members as opposed to a control group and a non-treatment group (Guerra & Slabey, 1990).

Statement of Research Direction

Analyzing *Positive Life Changes,* the curriculum appears to be clearly defined with strong theoretical support; however, due to its recent publication, no empirical research has been conducted on this intervention. In order to determine the utility of this curriculum, a pre-and-post-test multiple baseline study was conducted. Specifically, the study sought to determine whether students who experience the *Positive Life Changes* curriculum experience a significant:

(a) increase in **academic engagement**, as measured through standardized assessment, direct behavior rating by teachers, office referrals and homework completion.

(b) increase in **social and emotional learning**, as measured through standardized assessment, direct behavior rating by teachers, and student surveys included in the curriculum.

Along with these areas of exploration, the study also sought to determine perceived strengths of the intervention from a student perspective, and to outline potential mechanisms of change related to academic and/or social-emotional growth. Student perceptions of *Positive Life Changes* were addressed via post-intervention small-group semi-structured interviews.

CHAPTER THREE

Method

Setting

This study was conducted in a suburban school district in the Midwest region of the United States. In the year the study took place (2012-2013 school year), total school enrollment was 812 students. The school's ethnic composition was 92 percent European American, 3 percent Asian/Pacific Islander American, 3 percent African American (non-Hispanic), and 2 percent Hispanic. Eight percent of students in the school were eligible for free or reduced-price lunch programs. At the time of the intervention, the school offered social emotional learning in the form of small group meetings with no set curriculum.

Participants

The study was comprised of students who were nominated by the school social worker, guidance counselor, and school psychologist for additional social-emotional support based on their levels of problem behavior and perceived need for support beyond a universal intervention. Initially, 16 students identified to participate in the study and consent forms were sent home by the students' teachers (See Appendix A). Eleven parents returned the signed consent form, and student invitations were issued to join an intervention group (See Appendix B).

The sample contained students in the eighth grade, ranging in age from 13 to 14. There were 5 male and 6 female participants. Ethnically, eight students identified as European American, one identified as African American, one identified as Asian

American and one identified as Hispanic. Students were randomly assigned into three groups (n = 3, n = 3, n = 5) to implement the multiple baseline design. Midway through the session, one male European American participant was dropped from the study due to attendance issues; the final sample contained 10 students, divided into three groups (n = 3, n = 3, n = 4).

Materials

Students who participated in the study completed Workbook 1: Who am I and Where Am I Going? of *Positive Life Changes: A Cognitive-Behavioral Intervention for Adolescents and Young Adults*. *Positive Life Changes* is a "comprehensive cognitive-behavioral training intervention" targeted at secondary students in schools or alternative settings (Guerra, 2009, p. 1). The intervention is composed of scripted lessons, supplemented with participant homework and discussion.

Measures

Assessments.

Behavioral and Emotional Rating Scale, Second Edition (BERS-2). The Behavioral and Emotional Rating Scale, Second Edition (BERS-2; Epstein, 2004) is a 52-item rating scale used to measure the competencies and personal strengths of children and adolescents. Scaled scores are delivered in five core areas of functioning: Interpersonal Strength, Involvement with Family, Intrapersonal Strength, School Functioning, and Affective Strength; standard scale scores in each core area have a mean of 10 and a standard deviation of 3. An Overall Strengths Index is also provided, with a mean of 100 and a standard deviation of 15. Larger scaled scores represent more strength behavior. As

a multi-source assessment tool, the BERS-2 can be completed by children, parents, and teachers/other educational professionals. According to the BERS-2 manual, it can be used as an evaluation measure, for planning intervention services, and as an outcome measure. This measure has been shown to display good internal reliability (Epstein, 2004) and strong criterion (Epstein, Ryser, & Pearson, 2002) and convergent (Epstein, Nordness, Nelson, & Hertzog, 2002; Harniss, Epstein, Ryser, & Pearson, 1999) evidences of validity. However, while the reliability of the measure is adequate for the present study, it should be noted that it is based upon a relatively low sample size, specifically for minority populations (Salvia, Ysseldyke, & Bolt, 2007).

Direct behavior rating. Direct behavior ratings possess the benefits of systematic direct observation with the strengths of a behavior rating scale (Chafouleas, Riley-Tillman, & Christ, 2009). To complete a direct-behavior rating, an individual who has firsthand experience with student(s) exhibiting specific target behaviors completes a rating scale regarding these behaviors. This rating scale should be completed with close proximity to a pre-specified observation period and minimal interference should be required to discern the occurrence of target behaviors. This data can then be graphed to display whether change has occurred in response to supports or interventions in the classroom (Chafouleas, Riley-Tillman, & Christ, 2009).

Direct behavior rating scales (See Appendix C) were completed by classroom teachers four times per week for the duration of the study. Teachers were instructed how to use direct behavior rating scales via a 10 minute training at the onset of the study. Specifically, direct behavior rating scales measured the percentage of time students were

respectful, responsible, and academically engaged in one 44-minute class period. Teachers were also asked to check a box indicating whether students had completed homework assigned for the class period or been referred to the office for discipline.

For the purpose of this study, "respectful" behavior was defined as, "compliant and polite behavior in response to classroom rules, adult direction, and/or peer interactions. For example: follows teacher directions, prosocial interaction with peers, positive response to adult requests, conformity to class rules and norms." "Responsible" behavior was defined as, "accountable and appropriate behavior that reflects preparedness and/or foresight. For example: brings necessary materials to class, remembers to complete assignments, brings back library books or other materials." Finally, "academically-engaged" behavior was defined as, "actively or passively participating in the classroom activity. For example; writing, raising hand, answering a question, talking about a lesson, listening to the teacher, reading silently, or looking at instructional materials" (See Appendix C).

Positive Life Changes Core Competency Assessment. A series of Core Competency Assessment measures are included within the *Positive Life Changes* curriculum. These include a 10-item rating-scale Core Competency Assessment for each workbook, purported to measure skills taught within the curriculum. Core Competency Assessment Part 1: Positive Sense of Self and Self-Control was administered to students before and after the completion of Workbook 1 in the *Positive Life Changes* series. Students can score a maximum of 40 points on this assessment, with higher scores

suggesting increased competency; reliability and validity evidence is not presented for this measure.

Semi-structured Exit Interview. Following the intervention, students participated in a semi-structured group interview. The interview took place during the students' regularly scheduled lunch, with students maintaining initial group assignment. To focus the group and initiate discussion, students were asked four questions: (1) What did you think of the intervention? (2) What did you like about the intervention? (3) What did you dislike about the intervention? (4) Is there anything else you think people might want to know about the intervention or your experience?. Throughout the interview, students were asked to elaborate on answers for clarification purposes (e.g., Student: "I felt like we learned a lot of things." Interviewer: "What 'things' do you mean?"). All student responses were recorded using a laptop computer; they later were reviewed for general themes/student perceptions and potential mechanisms of change using qualitative content analysis.

Measurement. Upon referral for behavior support and parent consent, students selected for the study (*N* = 10*)* were asked to complete the BERS-2, along with the Core Competency Assessment contained in the curriculum. Teachers also completed the BERS-2 one to five days prior to the beginning the intervention. A follow-up BERS-2 was completed one to five days following completion of the intervention. A direct behavior rating of student behavior and a dichotomous rating of homework completion were completed by teachers 4 times weekly for each student throughout the study. At the

conclusion of the study, students were given an informal interview to share their thoughts on the intervention process.

Fidelity of implementation. Fidelity of implementation of the *Positive Life Changes* program was measured throughout the intervention phase. A graduate student from the University of Minnesota administered a fidelity checklist (See Appendix D), in which implementation integrity was measured for the intervention for each group of students. This checklist measured features of implementation integrity, including coherence to the curriculum, appropriate wait times, and setting of the intervention. The mean percentage of observed critical features was 100 percent indicating high levels of fidelity.

Design

Support staff identified 16 eighth grade students in need of additional social and emotional skills or support; 11 parents of these students returned signed consent forms to participate in the study. Midway through the study, one student was dropped from data collection due to attendance issues ($N = 10$). These students were divided into three groups: one received the intervention immediately ($n = 3$), and two received the intervention with a week ($n = 3$) and two-week delay ($n = 4$), respectively. Students and the researcher were not blind to the intervention, however, teachers involved in the study were blind to student conditions and group assignment.

Students met in small groups for 2 sessions a week for 5 weeks, working through the first workbook of the *Positive Life Changes* curriculum. Groups met during the students lunch period, as this time was convenient for teachers and students and standard

practice in the middle school. Students completed the BERS-2 Youth Rating Scale (YRS) and the Core Competency Assessment included in the *Positive Life Changes* curriculum. Teachers also completed the BERS-2 Teacher Rating Scale (TRS) directly before and after the intervention for each student. A direct behavior rating scale assessing student responsibility, respectfulness, and academic engagement was completed for each student by general education teachers 4 times weekly throughout the course of the study.

Following the intervention, students were given the opportunity to provide qualitative feedback via a semi-structured group interview. At the end of the study, students were compensated with a pizza-party during the regularly scheduled lunch group meeting. All eighth grade teachers were compensated with weekly baked-goods regardless of participation.

Data analysis

Pre and post-intervention measures. Pre-and post-intervention measures were compared for the BERS-2 Teacher Rating Scale (TRS) and Youth Rating Scale (YRS; $N = 10$); pre-and post-intervention scores were also compared for the Core Competency Assessment contained in the curriculum. Mean differences were analyzed for significance using the Wilcoxon signed-rank nonparametric analysis.

Multiple-baseline design and conditions. A multiple-baseline design was also employed to measure the effectiveness of the *Positive Life Changes* curriculum on student academic engagement and social-emotional competence. Given the small group-level implementation of the intervention, average group trajectories were visually analyzed. Only students who displayed need (i.e., <100%) during baseline in the areas

being measured (i.e., Respectful, Responsible, Academically Engaged) were included in the final multiple baseline analysis (Group 1: $n = 3$, Group 2: $n = 2$, Group 3: $n = 3$).

Baseline. The baseline phase consisted of a minimum of 3 direct behavior ratings by a classroom teacher. Teachers rated students on the percentage of time that they exhibited respectful, responsible, and academically engaged behavior for one 44-minute class session (see Appendix C for DBR Form). During baseline, students participated in a non-structured small-group lunch with a graduate student; no changes in the students' class routine occurred during the baseline phase. Of note, in the baseline phase, one student in each group was shown to display no need (i.e., 100% observed behavior in the classroom areas of Respectfulness, Responsibility, and Academic Engagement); given this lack of need, their data were not included in final sample for visual analysis. These participants still experienced the *Positive Life Changes* intervention, as they displayed needs in other areas (e.g., intrapersonal strength). The final multiple-baseline sample contained 7 participants.

Intervention. During the intervention phase, students worked through the first workbook of the *Positive Life Changes* curriculum in a small-group setting. Students met twice weekly during a 32-minute lunch period to discussed one scripted lesson per session, for five weeks. The author led intervention sessions following a direct instruction script. Students were asked to complete readings and small homework assignments associated with the curriculum during their daily advisory period or at home.

Maintenance. Once students had completed the five-week intervention, a reward pizza party was held the following week. Following this meeting, students followed their

regular class schedule with no supplemental lunch meetings; teachers continued to complete direct behavior ratings on student behavior in the classroom to observe whether any changes in behavior were maintained.

Semi-structured group interview. Student responses to a semi-structured group exit interview were recorded using a laptop computer and analyzed using qualitative content analysis. Content analysis is, "a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns." (Hsieh & Shannon, 2005, p. 1278). In contrast to quantitative data analysis, which is primarily deductive in nature, qualitative content analysis is inductive in nature. It seeks to examine meanings, patterns, and themes that manifest a particular text to form inferences, and on occasion, generate theory (Zhang & Wildemuth, 2009). For the purpose of this study, the semi-structured group exit interview was analyzed to explore potential mechanisms of change related to academic and/or social-emotional growth.

CHAPTER FOUR

Results

Three types of data were gathered and analyzed to measure the stated research questions: whether students who experienced the *Positive Life Changes* intervention show increases in either (a) academic engagement or (b) social and emotional learning. First, students and teachers completed pre- and post-test assessments (i.e., Behavior and Emotion Rating Scale-Second Edition, *Positive Life Changes* Core Competency Assessment). Additionally, teachers completed four weekly Direct Behavior Rating scales (DBRs) for each student; these DBRs measured Respectful, Responsible, and Academically Engaged student behaviors for the duration of the study. Teachers also recorded student office referrals and homework completion data on the DBR form. Of note, teachers were blind to student group assignment, and did not know when the intervention started or concluded. Finally, students were given a semi-structured group interview following the intervention; these discussions were recorded and reviewed to explore student perceptions of the intervention and mechanisms of change.

Pre- and Post-Intervention Measures

Behavior and Emotion Rating Scale—Second Edition (BERS-2). Using the Behavior and Emotion Rating Scale—Second Edition (BERS-2), teachers and students rated their perceptions of the student's school functioning before and after the intervention (See Tables 1 and 2). Teachers completed the Teacher Rating Scale (TRS) edition, whereas students completed the Youth Rating Scale (YRS) version. Mean

differences in Pre and Post-Intervention scores were examined with a Wilcoxon signed-rank nonparametric analysis.

Teacher Rating Scale. Wilcoxon signed-rank nonparametric analysis of the pre and post-intervention BERS-2 Teacher Rating Scale data indicated that significant change in student behavior was observed in the areas of Interpersonal Strength, 12.3% increase (p =.05), and Overall Strength Index, 8.1% increase (p = .05). Although mean standard scores increased in all other categories, none of these increases were statistically significant (See Table 1).

Table 1

Mean Differences in Average Pre- and Post-Intervention BERS-2 TRS Standard Scores (N = 10)

	Pre-Intervention		Post-Intervention		
BERS-2 Index Area	M	SD	M	SD	Mean Difference (p-value)
Interpersonal Strength	10.6	2.6	12.6	2.5	**+1.3 (.05)**
Family Involvement	10.1	2.9	11.3	2.7	+1.2 (.58)
Intrapersonal Strength	10.8	3.3	11.4	3.2	+1.1 (.14)
School Functioning	9.4	3.1	10.1	3	+1.1 (.17)
Affective Strength	10.2	3.3	11.8	2.4	+1.3 (.24)
Overall Strength Index	100.6	16.8	109.5	17	**+8.1 (.05)**

Note. BERS-2 TRS = Behavior and Emotion Rating Scale-Second Edition, Teacher Rating Scale. Statistically significance of mean differences calculated using a Wilcoxian Signed-Rank Test, significant p-values indicated in bold.

Youth Rating Scale. Wilcoxon signed-ranked nonparametric analysis of the pre and post-intervention BERS-2 Youth Rating Scale data indicated that significant change in student behavior was observed in the areas of Interpersonal Strength, 16.7% increase (p = .01), Affective Strength, 14.4% increase, (p = .04) and the Overall Strengths Index,

7.5% increase (p = .02; See Table 2). Although mean standard score increased in all other categories, none of these increases were statistically significant (See Table 2).

Table 2

Mean Differences in Average Pre- and Post-Intervention BERS-2 YRS Standard Scores (N = 10)

	Pre-Intervention		Post-Intervention		
BERS-2 Index Area	M	SD	M	SD	Mean Difference (p-value)
Interpersonal Strength	12	1.8	13.3	1.3	**+2 (.01)**
Family Involvement	11.7	2	12.9	3	+1.2 (.10)
Intrapersonal Strength	11.7	2.1	12.8	1.8	+0.6 (.29)
School Functioning	10.8	1.9	11.9	2.1	+0.7 (.28)
Affective Strength	11.1	1	12.4	1.5	**+1.6 (.04)**
Overall Strength Index	109.8	8	117.9	7.7	**+ 8.9 (.01)**

Note. BERS-2 YRS = Behavior and Emotion Rating Scale-Second Edition, Youth Rating Scale. Statistically significance of mean differences calculated using a Wilcoxian Signed-Rank Test, significant p-values indicated in bold.

***Positive Life Changes* Core Competency Assessment.** Wilcoxon analysis of the pre and post-intervention *Positive Life Changes* Core Competency Assessment revealed that although mean standard score increased from 32.5 to 34.1, this increase was not statistically significant (p =.14).

Direct Behavior Rating Scales

Teachers were asked to complete 4 weekly DBRs per student regarding their respectful, responsible and academically engaged behavior; these data are presented in Figure 1.

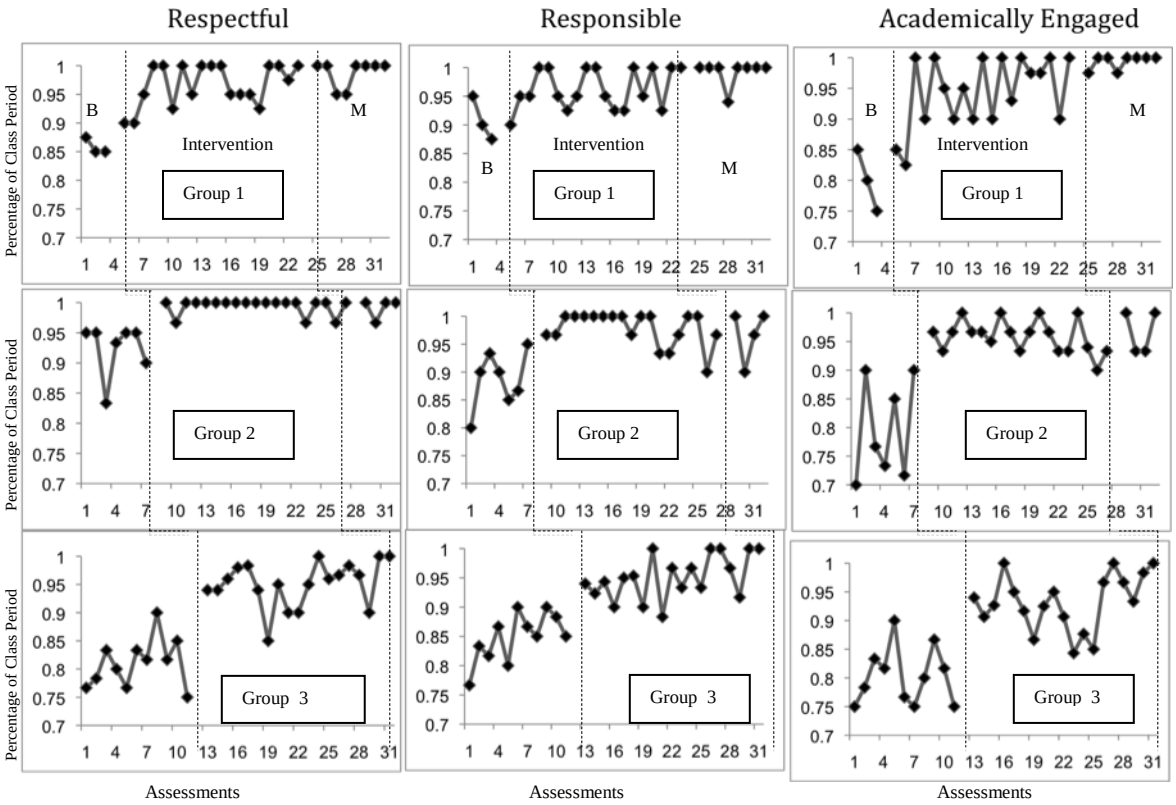

Figure 1. Average student percentages of respectful, responsible, and academically engaged behavior in one class period across intervention groups. *Note.* B = baseline, M = maintenance

Respectful.

Group 1. In the baseline phase, group 1 showed a negative trend with minimal variation in respectfulness, and a mean level of .86. Moving into intervention, data showed a positive trend for the first week, but then was marked by increased variation and minimal slope; all intervention data levels (*M* = .97) remained greater than pre-intervention levels (*M* =.86*)*. In the maintenance phase, group 1 maintained a high level of respectfulness (*M* = .99), with similar variability and a flat trend.

Group 2. In the baseline phase, group 2 showed moderate variability and little trend in respectfulness, with a mean level of .92. In intervention, this variability in respectfulness decreased substantially, with an increased mean level of respectful behavior (*M* = .99). In the maintenance phase, the level (*M* = .99*)* and variability of respectfulness were maintained, with a flat trend.

Group 3. In the baseline phase, group 3 showed moderate variability with a slight positive trend in respectfulness and a mean level of .81. In intervention, variability was maintained, with a higher mean average level of respectfulness (*M* = .95) and a positive trend.

Responsible

Group 1. In the baseline phase, group 1 showed a negative trend with minimal variation in responsibility, yielding a mean level of .91. Moving into intervention, data showed a positive trend for the first week, but then was marked by increased variation and minimal slope; on average, intervention levels (*M* = .96) were greater than pre-

intervention levels (*M* = .91). In the maintenance phase, group one maintained a high level of responsibility (*M* = .99), with similar variability and a flat trend.

Group 2. In the baseline phase, group 2 showed moderate variability in responsibility and little trend and a mean level of .89. In intervention, this variability in responsibility decreased substantially, with an increased mean level of responsible behavior (*M* = .98). In the maintenance phase, the level (*M* = .97) and variability of responsibility were maintained, with a flat trend.

Group 3. In the baseline phase, group 3 showed moderate variability with a slight positive trend in responsibility, with a mean level of .85. In intervention, variability was maintained, with a higher mean level of responsibility (*M* = .95) and a positive trend.

Academically engaged.

Group 1. In the baseline phase, group 1 showed a negative trend with minimal variation in academic engagement, with a mean level of .80. Moving into intervention, data showed an overall positive trend marked by increased variation in academic engagement; on average, intervention levels (*M* = .95) were greater than pre-intervention academic engagement levels (*M* = .80). In the maintenance phase, group one maintained a high level of academic engagement (*M* = .99), with decreased variability and a flat trend.

Group 2. In the baseline phase, group 2 showed moderate variability and little trend in academic engagement, with a mean level of .80. In intervention, this variability in academic engagement decreased, with an increased mean level of academically

engaged behavior (*M* = .96). In the maintenance phase, the level (*M* = .97*)* and variability of academic engagement was consistent with the intervention phase, showing flat trend.

Group 3. In the baseline phase, group 3 showed moderate variability with a no apparent trend in academic engagement, with a mean level of .80. In intervention, variability was maintained, with a higher mean level of academic engagement (*M* = .93) and a slight positive trend.

Homework Completion

In addition to indicating the percentage of time that students were responsible, respectful, and academically engaged, teachers recorded whether students completed assigned homework for the class period. Students involved in the intervention were able to consistently complete their homework during baseline, intervention, and maintenance phases, with a 100% average completion rate throughout the study.

Office Referrals

Throughout the course of the intervention, two office referrals occurred for one student in the study; this participant was in group 3 of the intervention, and occurred at two and four weeks into the intervention. The researcher stopped gathering data on this student in week 4 given insufficient exposure to the intervention due to poor attendance, however, the student was allowed to remain in his regularly scheduled group. Otherwise, there were no office referrals for students in the study.

Student Interviews

Following completion of the *Positive Life Changes* curriculum, students completed a 20-minute semi-structured group interview. In each interview, students

answered four questions: (1) What did you think of the intervention? (2) What did you like about the intervention? (3) What did you dislike about the intervention? (4) Is there anything else you think people might want to know about the intervention or your experience?

Intervention perceptions. Questions 1 and 4 can be condensed into general student perceptions of the *Positive Life Changes* curriculum and small group intervention process. Generally, students expressed positive emotions surrounding both the intervention experience and the curriculum. Students thought the intervention was fairly comprehensive, and drew from a variety of areas relating to social-emotional strength. "It went through a whole bunch of different things in different ways," one student said. When asked to clarify, he said "things" referred to lessons on a variety of topics (e.g., mindfulness, goal-directed behavior, anger management) and "ways" referred to working through scripted examples, discussing personal experiences, and various writing/drawing activities. Another student said that she thought students who were going to experience the *Positive Life Changes* curriculum should know that they were going to have to think a lot about "why they do things" and be prepared to "practice making changes." Another student built on this comment, saying that practicing new behaviors was difficult, but that the results were "definitely worth it."

Intervention strengths. Students in each group expressed several strengths of the *Positive Life Changes* curriculum and intervention process. Of note, many students liked the small-group, lunch time meetings. "It was kind of cool to get away from it all and meet new people," said one female student. When asked to clarify, she said "it all" meant

the busyness of the lunchroom, along with cliques, rumors, and general social tension. Six students in two of the groups espoused similar views. Referencing the curriculum itself, students said that they liked that the curriculum didn't tell them "what to do," but rather gave them "guidelines for how to be." In terms of lessons, all of the students in the study agreed that the lesson related to mindfulness and coping with stress (*Positive Life Changes* Workbook 1: Lesson 8) was the most helpful.

Intervention weaknesses. Students also expressed dislike toward some characteristics of the curriculum. In one group, students said the examples provided in the curriculum were too juvenile. "I feel like some of the examples are for little kids. We're not that stupid and things don't happen like that in real life," one student said. Other students echoed this perspective, although one provided a potential solution, saying, "Yeah, but we could always provide our own examples too, so it wasn't so bad." Criticism was minimal in the other two groups.

CHAPTER FIVE

Discussion

The purpose of this study was to determine whether students who experience *Positive Life Changes* experience an:

(a) increase in **academic engagement**, as measured through standardized assessment, direct behavior rating by teachers, and homework completion.

(b) increase in **social and emotional learning**, as measured through standardized assessment, direct behavior rating by teachers, and student surveys included in the curriculum.

Along with these areas of exploration, the study also sought to determine perceived strengths of the intervention from a student perspective, and to outline potential mechanisms of change related to academic and/or social-emotional growth. Student perceptions of *Positive Life Changes* were addressed via post-intervention small-group semi-structured interviews.

Academic Engagement

Standardized assessment. Reviewing pre- and post-intervention measurements, changes in the School Functioning composite score on the BERS-2 were not statistically significant on either the Teacher or Student Rating Scale. It is possible students did not experience increases in school functioning, however, this hypothesis is not supported by direct behavior rating data that show growth in academic engagement. Alternately, the lack of significant findings may be due to a lack of sensitivity provided by the BERS-2. Ceiling effects may also have confounded the results. Although students referred for the

study displayed lower school functioning than their suburban middle school peers, they scored in the nationally normed average range for pre-intervention school functioning levels. It is also possible that the five-week duration of the intervention did not provide enough time for growth in school functioning to reach a significant level. In future research investigators should explore the extent to which an increase in the duration of the intervention or a lower student pre-intervention level of school functioning yields significant gains in standardized assessment of school functioning.

Direct behavior rating. Exploring multiple baseline measures, student academic engagement appeared to improve for each group of students upon introduction of the *Positive Life Changes* intervention. Specifically, group 1 showed a moderate increase of academically engaged behavior, with a decrease in variation by the maintenance phase. Group 2 also showed a decrease in variation and an increase in academically engaged behavior related to the intervention. Finally, group 3 also displayed an increase in academically engaged behaviors linked to the intervention, although variation remained constant. The unique nature of change, that is, that some groups decrease in variability quickly whereas others persist in variability may be a result of the distinct "personality" of each group, or may be a result of inconsistent effectiveness. Ceiling effects may also be present in areas of academic engagement, as baseline levels varied between 70% and 90% academically engaged.

Homework completion and office referrals. Homework completion and office referrals showed little to no variation over the course of the study. Students were submitting nearly 100% of homework assignments prior to the intervention, and only one

student was sent to the office two times during the course of the study; this student also was dropped from the final sample due to attendance issues. In future studies, it may be valuable to include a broader population to explore whether *Positive Life Changes* has the potential to increase student homework completion and decrease office referrals.

Summarizing the results of *Positive Life Changes* on academic engagement, given the short duration of intervention (i.e., 5 weeks) and high level of pre-intervention student academic engagement, the small magnitude of change in academic engagement evident through direct behavior ratings is powerful. Future research may explore whether extending the intervention by 2 workbooks (10 additional weeks) has a stronger effect on academic engagement.

Social Emotional Learning

Standardized assessment. Reviewing pre- and post-intervention measurements, significant increases in teacher and student BERS-2 standard scale scores were observed in the Interpersonal Strength composite area (p = .05) and the Overall Strengths Index (p = .05). As *Positive Life Changes* is delivered in a small-group setting, students' relational competence may have improved largely due to increased exposure to peers and positive adult relationship. Alternately, growth may be attributed to direct instruction from the *Positive Life Changes* curriculum. This curriculum incorporates strategies for managing negative emotions related to relational conflict, which may have increased students' relational competence. Comparing these two hypotheses, as students were already meeting in a small group with a caring adult prior to the start of the intervention, it is more likely that some characteristic of the *Positive Life Changes* curriculum served as the

impetus for growth. A hypothesis for the mechanism of change in the intervention process is posited later in the discussion section (See Figure 2 on pg. 63).

The Affective Strength composite area only showed a significant increase in the student version of the BERS-2. This incongruence may be because an individual is likely to be more sensitive to his or her own affective levels than an outside observer. Alternately, placebo effects may come into play; if students perceive they are going to experience affective growth through *Positive Life Changes*, this perception may skew their final self-report.

Direct behavior rating. Exploring multiple baseline measures, student respectful and responsible behavior appears to improve in level for each group of students upon introduction of the *Positive Life Changes* intervention, although variability of behavior was differential across groups. It is hypothesized that this differential variability may be due to the make-up of each group (e.g., gender, internalizing-externalizing referral concern, size of group) or due to the duration of "bonding time" before the intervention was established. Of note, during the baseline phase of the intervention, students still met in a small group with the interventionist regularly for lunch, but only for unstructured discussion.

For group 1, it appears that respectful and responsible behaviors increased in level, but displayed moderate variability until the maintenance phase. This variation may be because the group was acclimating/relationship building, or it may be reflective of intervention effectiveness. For group 2, gains in level of respectful behavior were more stable; this increased stability may be a result of longer pre-intervention group bonding

time, or again, could be related to intervention effectiveness. For the third group, overall gains in level of respectful and responsible behavior occurred, however, variability remained consistent throughout the course of the study. It could be that the third group had too long in the "bonding" baseline condition, and was not able to transition as easily into direct instruction curriculum. It also could be possible that while *Positive Life Changes* has the potential to raise the overall mean level of academic engagement, it does not reliably provide for a decrease in variation for this behavior.

In terms of group differences, Groups 1 and 3 were co-ed groups, whereas Group 2 was comprised entirely of female students. Of note, Group 2 also displayed the highest level of desired target behaviors, and the lowest level of variability of the three groups. Perhaps, same-gender groups are more amenable for making social-emotional connections. Further, group 3 contained five students, making it the largest group. It is also possible that the intervention has differential efficacy as a function of group size. Given the design of this study, it is impossible to determine whether gender or group size have impacted overall results. In future research investigators should take into account whether there are differential results based upon group characteristics.

***Positive Life Changes* Core Curriculum Assessment.** The *Positive Life Changes* Core Curriculum Assessment showed non-significant (p =.14) growth following the intervention. While it is likely the creators of *Positive Life Changes* included this measure as a means of encouraging data-based evaluation of intervention effectiveness, the lack of validity and reliability data on this measure provide little utility for scores. Without reliability and validity data, it is impossible to say what the Core Curriculum Assessment

is measuring, how it captures the construct it is measuring, and the extent to which it is sensitive to change over time. School staff members who do not have a background in measurement may inappropriately use this tool to measure intervention effectiveness. Instead of using this measure, it is recommended that standardized assessment tools and/or direct behavior ratings be used to measure the effectiveness of *Positive Life Changes.*

Model of Mechanisms for Change

Given the observed growth in social-emotional learning and academic engagement, student exit interviews were also used to explore potential mechanisms driving social-emotional change. Using qualitative content analysis to analyze themes, transcripts of the interviews were examined for themes related to change. Specifically, students across intervention groups discussed the themes of autonomy, behavior and thought awareness, relationship importance, schemas for interpretation of behavior, schemas for selection of future behaviors, behavior change, and self-reflection. These themes can be incorporated to create a potential model of mechanisms of change related to social emotional learning (See Figure 2.).

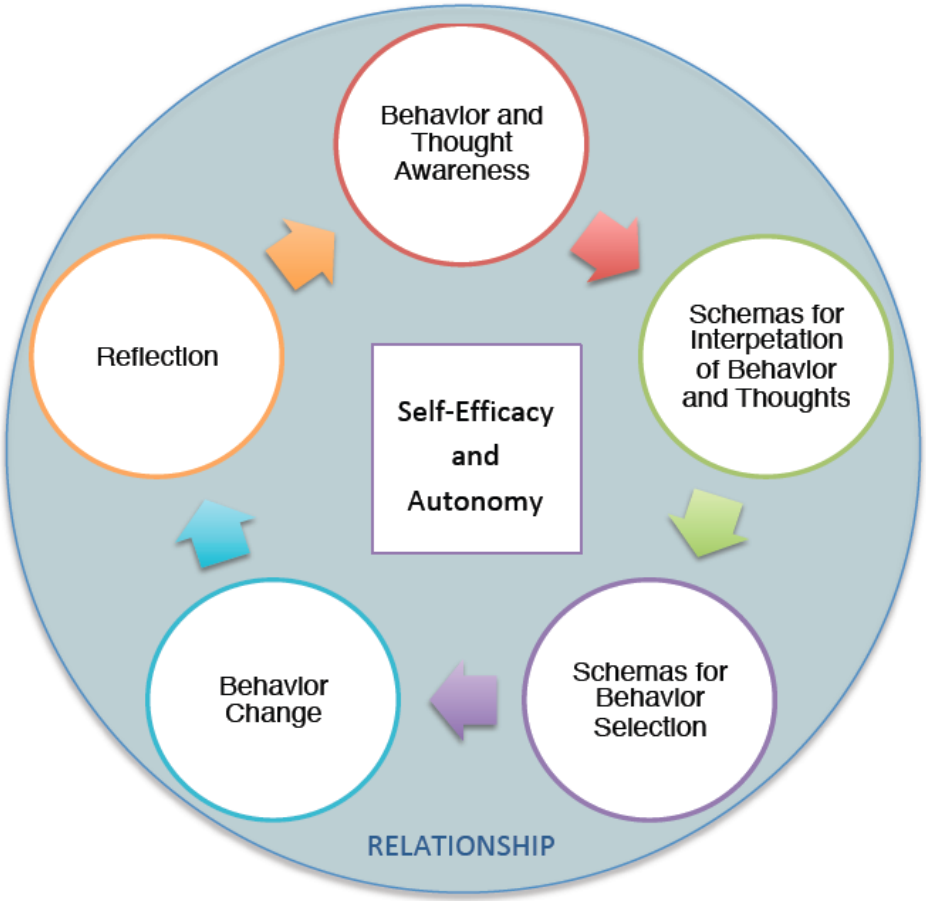

Figure 2. Potential model of the cyclical mechanisms for change in social and emotional learning interventions.

This model is based on qualitative student feedback from the present study, but also echoes tenets from a variety of existing theoretical models. In prior research, self-efficacy (Bandura, 1977), shifting, planning, and inhibitory control (Greenburg, 2006), and self-monitoring (espoused in the frameworks of the social informational-processing model [Dodge et al., 1986] and cognitive-behavioral model [Meichenbaum, 1977]) all have been highlighted as driving behavior change. Further, research supports that caring

relationships among students and teachers, and students and their peers, can foster commitment to school while promoting academic and social-emotional success (Hawkins, Smith, & Catalano, 2004; Durlak et al., 2011).

The proposed model shows that behavior change can only occur nested within relationships. This relational base includes both teacher-student and student-student relationships, and provides a trusting environment in which students can begin to build skills. Skill building starts with Behavior and Thought Awareness, that is, that students become consciously aware of how they and others think and act. Once awareness occurs, students learn Schemas for Interpretation of Behaviors and Thoughts in order to appropriately identify thoughts and actions. In this stage, students may refine their existing schemas, for example, becoming aware of and correcting a hostile attribution bias. Once students can appropriately identify behavior and thoughts, they need an additional set of schemas to learn to appropriately select response behaviors; in the model, this stage is labeled Schemas for Behavior Selection. Next, these schemas must be put into action in the form of Behavior Change. Finally, students must reflect on whether their actions and thoughts achieved an intended effect, labeled the Reflection stage. As individuals progress through this cycle, they develop Self-Efficacy and Autonomy, which are nested in the center of the circle to demonstrate their interconnectedness among stages.

Applying student interviews to the proposed model, a student expressed that, ““I never really thought about stuff before. [Interviewer: What do you mean by stuff?]. Stuff like how I think changes how I am or what I do.” This quote could represent the student’s

increase in awareness of his behaviors and thoughts. Further, the latter part of the quote may show transition from awareness of the behavior to the development of a schema to interpret the relationship between behavior and thoughts.

Another student said that the intervention "didn't change me like a robot or anything, but gave me, you know, guidelines for how to be." This suggests that rather than providing specific replacement behaviors (e.g., Just say no), an effective curriculum provides a schema for evaluating potential response behaviors to determine the most positive response. These schemas provide for autonomy while curriculum scaffolding meets students at their current level, providing the seminal zone of proximal development (Vygotsky, 1978) for social emotional competence. Once students can select appropriate or alternate behaviors, experimentation often occurs. For example, one student said, "I thought the examples were kind of dumb at first, but then I tried it and it worked like in the book."

Lastly, students also expressed growth related to reflection on behavior and action. Specifically, a student said, "[The intervention curriculum] taught me how to chill. [What do you mean by chill?] You know, clear my head, think through what actually happened or how it mattered." This reflection does not represent an end to the process of change, however, because it transitions into increased behavior and thought awareness, restarting the cycle of change.

Implications for Research and Practice

Given the need for social-emotional competence in schools (Durlak et al., 2011), it is essential that there is an increase in applied research on social-emotional learning and

curriculum taking place in public schools. Ecological validity can only be achieved if research takes place in the actual school environment. Financial, scheduling and staffing limitations must be considered, along with student attendance, parent concerns and administrator approval; there is little utility to an effective intervention that cannot be implemented due to budget, time, student, or staffing constraints.

The present study supports that a short-term, low-cost direct-instruction social emotional learning curriculum can promote increased academic engagement and social-emotional learning for middle school students. Interventions took place during regular student lunch hours, helping alleviate the concern of missing minutes of academic instruction. Of note, the curriculum and materials cost less than $5 per student, while direct behavior rating materials used to monitor student growth were free. While some intervention effectiveness may be attributable to positive small-group adult contact, the present study supports that direct-instruction interventions provide for growth above and beyond unstructured small-group adult time, which was incorporated in the baseline for the study.

Exploring the hypothetical model for change related to social and emotional learning (Figure 2), it is essential that a student-student and student-teacher relational foundation is established prior to implementation of an intervention. Following this foundation, students should be provided with direct instruction to scaffold the schemas for appropriate behavior selection, as opposed to specific replacement behaviors (e.g., "Just say no"). This provision of schemas may provide for better generalization outside of the small-group setting, given the innumerable circumstances a student may face. Finally,

students should be provided ample time to cycle through the process of change several times, building autonomy and self-efficacy that are crucial to generalization and application of skills.

Limitations and Directions for Future Research

Several limitations to the present study exist, warranting consideration and providing direction for additional research. These limitations relate both to the generalizability of results and the method with which they were acquired.

First, results can only be generalized to a population that is represented by the sample. Participants were selected as students in need of a targeted (Tier II) intervention. Although this sample population was fairly diverse, given the setting, it still can only be generalized to students attending school in a Midwestern suburb, with less than 8% of students receiving free or reduced-price lunch. It is unknown whether similar results would be evident in a different population receiving *Positive Life Changes.* Additional research is necessary to extend these results to low-income students, students from other parts of the country, and students with increased social-emotional needs. Further, it is necessary to gather data on the maintenance of effects over time to determine the overall effectiveness of the intervention.

Methodologically, additional limitations exist for the present study. While participants were identified as “at-risk” or “in need of services” by school support staff, student scores were within the nationally-normative average score range on the BERS-2. It is possible that ceiling effects were present, limiting students’ ability to change or grow from the intervention. In addition to ceiling effects, experimenter expectancy effects and

demand characteristics may also be in play, as neither the students involved in the study nor the researcher implementing the intervention were blind to experimental conditions. Further, the facilitator of the interventions conducted exit interviews; although students still discussed weaknesses of the curriculum, they may have altered or moderated their answers for social desirability. Future research may incorporate double-blind procedures or a control group to minimize these potential confounds.

Finally, students did not complete personal direct behavior ratings for the multiple-baseline portion of the study; given this lack of data, it is impossible to say whether internal changes represented by pre and post-test measures (See Table 2.) can be attributed to the intervention, or are simply a result of maturation. In addition to these limitations, the lack of validity and reliability data on the *Positive Life Changes* Core Assessment decreases the meaning of data gathered using this instrument; further exploration is necessary to increase the utility of this tool.

In future studies, it would be wise to analyze student referral concerns (e.g., internalizing and externalizing needs) prior to intervention and to use a design that would better capture the unique differences among students referred for social-emotional learning interventions. Further, it may be helpful to have students fill out a measure regarding their own progress, including internal measures, to better progress monitor this change. Finally, research is necessary to explore the mechanisms of change driving student social-emotional and academic growth. If specific factors or stages in student improvement can be identified, then interventions can be targeted to emphasize these

areas and ultimately provide better academic, social-emotional and life outcomes for students.

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APPENDIX A

Parental Consent Form for Child to participate in a Social and Emotional Learning Study

Title of Research: Social Emotional Learning for Adolescents
Name of Principal Investigator/Primary Researcher: Julie Young M.A.
Phone Number of Principal Investigator/Primary Researcher: 515-971-9677
E-mail of Principal Investigator/Primary Researcher: youn1048@umn.edu
Committee Chair: Jim Ysseldyke, PhD

A. Purpose and Background
Under the supervision of Dr. Ysseldyke, Professor of Educational Psychology at the University of Minnesota, **Julie Young**, a graduate student in research of School Psychology is conducting research on curriculum to promote social and emotional learning. The purpose of this study is to help the researcher study whether the curriculum is effective in improving student outcomes. Your child was selected for potential participation in this study on social and emotional learning strengths by his or her classroom teacher(s).

B. Procedures
If I agree for my child to participate in this research study, the following will occur:

1. My child will be asked to fill out a behavior and emotion rating scale before and after receiving the curriculum. The rating scale is a list of questions relating to their behaviors and emotions. This process will occur during an advisory period at school.

2. My child will be invited to meet for a lunch group twice a week to discuss social and emotional strengths, and how to use their individual strengths to be their best in school.

3. The researcher will gather information from teachers to monitor your child's social and emotional learning growth.

4. There will be no consequences if your child chooses to not participate. He or she will continue with regular education at Mahtomedi Middle School.

C. Risks and Benefits
Risks will include possible discomfort at answering some questions and inconvenience.

Confidentiality: The information gathered from this study will be kept as confidential as possible.
Your child's real name will not be used in the report and all files, transcripts and data will be stored in a locked cabinet, and no one except the researcher will have access to them. Your child's name will not be used and any identifying personal information will be avoided.

D. Direct Benefits
Benefits will include access to the social and emotional learning curriculum.

E. Alternatives
Your child is free to choose not to participate in this research study.

F. Costs
There will be no costs to your child or you as a result of your child taking part in this research
study.

H. Questions
If I have any questions about the study, I can contact **Julie Young** by calling 515-971-9677 or
e-mailing her at youn1048@umn.edu**;** alternately, I can contact Dr. Ysseldyke, Chair of the Committee at **jim@umn.edu**.

I. Statement of Consent
I have been given a copy of this consent form to keep. PARTICIPATION IN RESEARCH STUDY IS VOLUNTARY. My child is free to decline to participate in this research study, or I may withdraw their participation at any point without penalty. Their decision whether or not to participate in this research study will have no influence on their present or future status at Mahtomedi Middle School.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher(s), **you are encouraged** to contact the Research Subjects' Advocate Line, D528 Mayo, 420 Delaware St. Southeast, Minneapolis, Minnesota 55455; (612) 625-1650.

My child _____ has my consent to participate in the social and emotional learning research study.

Student is a minor _____
(Child's age)

Student signature: _____ Date: _____
(signature)

Parent/Guardian: _____ Date: _____
(signature)

Investigator: _____ Date: _____
(signature)

Thank you!

APPENDIX B


You're invited to join a
Friendship Group
Hello! My name is Ms. Young and I want to invite you to join me twice a week for a Friendship Group. In this group, we'll get to know one another, learn to manage stress, talk about our feelings, practice mindfulness, and learn different techniques for being our best. We will go through a book called Positive Life Changes, and you'll have a chance to give it your own review. You'll also get to be a part of my dissertation, which is a really long research paper discussing whether Positive Life Changes does what it promises, and how social emotional learning can help other students like you. As this group takes place during lunch, please get your meal and bring it up to my office, which is located across from the Nurse's office (Room B221). This will be fun! If you'd like to join, let me know and I'll tell you which days we are meeting. If you have any questions, feel free to stop by and ask!
I'm looking forward to getting to know you!
Ms. Young

APPENDIX C

Direct Behavior Rating Form

Date:	Student: Rater:	Activity Description:
Observation Time: Start: _____ End: _____	*Behavior Descriptions:* **Respectful** is compliant and polite behavior in response to classroom rules, adult directions, and/or peer interactions. For example: follows teacher direction, pro-social interaction with peers, positive response to adult request, conformity to classroom rules and norms. **Responsible** is accountable and appropriate behavior that reflects preparedness and/or foresight. For example: brings necessary materials to class, remembers to complete assignments, brings back library books or other materials. **Academically engaged** is actively or passively participating in the classroom activity. For example: writing, raising hand, answering a question, talking about a lesson, listening to the teacher, reading silently, or looking at instructional materials.	

Directions: Place a mark along the line that best reflects the percentage of total time the student exhibited each target behavior. Note that the percentages DO NOT need to total 100% across behaviors since some behaviors may co-occur.

Respectful

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Never Sometimes Always

Responsible

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Never Sometimes Always

Academic Engagement

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Never Sometimes Always

Homework Completed: □ Yes □ No
Office Referral: □ Yes □ No

APPENDIX D

Positive Life Changes| Fidelity Check

Lesson 6: Impulse Control

Circle whether the instructor completed the following lesson components with fidelity.

Introduction

- Instructor reminded students of the 7 Skills for Effective Group Members. [Yes | No]
    - *Note: All 7 Skills do not need to be mentioned unless students do not remember the skills.*
- Instructor reviewed the previous lesson, The Power of Willpower, and asked how students were doing with their will power. [Yes | No]

Lesson

- **Introduction**
    - Instructor reviewed Yes and No statements. [Yes | No]
    - Instructor gave participants adequate time to respond. [Yes | No]
- **Think Check**
    - Instructor read the "Think Check" [Yes | No]
    - Instructor gave students adequate time to respond. [Yes | No]
- **Vignette**
    - Instructor reviewed at least one vignette with students. [Yes | No]
    - Instructor gave students adequate time to respond. [Yes | No]
- **Hot Thoughts/Cool Thoughts**
    - Instructor reviewed Hot Thoughts/Cool Thoughts. [Yes | No]
    - Instructor gave students adequate time to respond. [Yes | No]

Environment

- **Physical environment**
    - All members of the group could see and hear one another. [Yes | No]
- **Classroom management**
    - Group members were treated with respect. [Yes | No]
    - Students were actively engaged in the material. [Yes | No]
        - If necessary, instructor intervened to redirect students.

Rater name: _____
Date: _____
Rater signature: _____